Iowa Department of Natural Resources
Title V Operating Permit

Name of Permitted Facility: **Keokuk Steel Castings, Inc., A Matrix Metals LLC Company**

Facility Location: **240 Royal Road & 3972 Main Street Keokuk, IA 52632**

Air Quality Operating Permit Number: 04-TV-012R1-M001
Expiration Date: September 29, 2015
Permit Renewal Application Deadline: March 29, 2015

EIQ Number: 92-3000
Facility File Number: 56-01-025

Responsible Official
Allan See
Plant Manager
3972 Main Street
Keokuk, IA 52632
Phone #: (319) 524-2661

Permit Contact Person for the Facility
Mike Desmidt
Director of Human Resources
3972 Main Street
Keokuk, IA 52632
Phone #: (319) 526-8212

This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit.

For the Director of the Department of Natural Resources

Douglas A. Campbell, Supervisor of Air Operating Permits Section Date

Table of Contents

Abbreviations

acfm.....actual cubic feet per minute
CFR.....Code of Federal Regulation
CE .....control equipment
CEM.....continuous emission monitor
^{o}F .....degrees Fahrenheit
EIQ.....emissions inventory questionnaire
EP.....emission point
EU .....emission unit
gr./dscf .....grains per dry standard cubic foot
gr./100 cf.....grains per one hundred cubic feet
IAC.....Iowa Administrative Code
IDNR.....Iowa Department of Natural Resources
MVAC.....motor vehicle air conditioner
NAICS.....North American Industry Classification System
NSPS.....new source performance standard
ppmv .....parts per million by volume
lb/hr.....pounds per hour
lb./MMBtu .....pounds per million British thermal units
SCC.....Source Classification Codes
scfm.....standard cubic feet per minute
SIC .....Standard Industrial Classification
TPY .....tons per year
USEPA.....United States Environmental Protection Agency

Pollutants
PM.....Particulate Matter (PM)
PM_{10}.....Particulate Matter (PM) ten microns and less in diameter
SO_2.....sulfur dioxide
NO_x .....nitrogen oxides
VOC .....volatile organic compound
CO.....carbon monoxide
HAP.....hazardous air pollutant
HCN .....hydrogen cyanide

I. Facility Description and Equipment List

Facility Name: Keokuk Steel Castings, A Matrix Metals LLC Company
Permit Number: 04-TV-012R1-M001

Facility Description: Steel Foundries (except Investment), (SIC 3325), (NAICS 331513)

Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
01	01	New Sand Tank	76-A-100
02	02	Thermal Sand Reclaim System	09-A-188
03	03	Sand Heaters	77-A-176-S7
	04	Sand Heaters	
	07a	Mold Mixer	
	07b	Mold Mixer	
	11	Palmer Sand Conditioner	
	30a	Reclaim Tank	
	30b	New Sand Receiving Tank	
05	05	Demmler Core Machine	96-A-695-S1
	06	Small Blower Core Machine	
	08	Redford CB22 Core Machine	
	09	Redford CB22 Core Machine	
	10	Redford CB26 Core Machine	
9B	17	Electric Arc Furnace	06-A-449-S3
10	14a	Mold Making	08-A-329-S1
	14b	Mold Making	
	14d	Mold Making	
	14e	Mold Making	
	15	Core Per-Mix	
	20	Ladle Preheat	
	21	Pouring & Cooling	
	23	Large Casting Shakeout	
	26	Burn Rail	
	29	GIW West	
11FUG	36	Special Products Grinding	Internally Vented
Interior Venting	37	GMAW Casting Repair Welders	04-A-1101
12	22	Shakeout	76-A-098-S6
	28	GIW East	
	35	Turntable Blast	
15	25	Tumbler (34 cu ft)	76-A-099-S2

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
17	31	6 Kwic Arc Booths	01-A-181-S5
18-1	32A	Casting Heat Treat (Oven #6511)	01-A-219-S3
18-2	32B	Casting Heat Treat (Oven #6512)	01-A-220-S4
18-3	32C	Casting Heat Treat (Oven #6513)	01-A-221-S3
18-4	32C	Casting Heat Treat (Oven #6513)	01-A-222-S3
18-5	32D	Casting Heat Treat (Oven #6514)	01-A-223-S3
18-6	32D	Casting Heat Treat (Oven #6514)	01-A-224-S3
18-7	32E	Casting Heat Treat (Oven #6515)	01-A-225-S4
19	33	Walk-in Blast	01-A-182-S3
25-1N	25-1N-A	Casting Welding / Weld Repair	01-A-227-S1
	25-1N-B	Carbon Rod Welding	
25-1S	25-1S-A	Casting Welding / Weld Repair	
	25-1S-B	Carbon Rod Welding	
25-2N	25-2N-A	Casting Welding / Weld Repair	
	25-2N-B	Carbon Rod Welding	
25-2S	25-2S-A	Casting Welding / Weld Repair	
	25-2S-B	Carbon Rod Welding	
25-3N	25-3N-A	Casting Welding / Weld Repair	
	25-3N-B	Carbon Rod Welding	
25-3S	25-3S-A	Casting Welding / Weld Repair	
	25-3S-B	Carbon Rod Welding	
25-4N	25-4S-A	Casting Welding / Weld Repair	
	25-4S-B	Carbon Rod Welding	
25-4S	25-4S-A	Casting Welding / Weld Repair	
	25-4S-B	Carbon Rod Welding	
25-5N	25-5N-A	Casting Welding / Weld Repair	
	25-5N-B	Carbon Rod Welding	
25-5S	25-5S-A	Casting Welding / Weld Repair	
	25-5S-B	Carbon Rod Welding	
25-6N	25-6N-A	Casting Welding / Weld Repair	
	25-6N-B	Carbon Rod Welding	
25-6S	25-6S-A	Casting Welding / Weld Repair	
	25-6S-B	Carbon Rod Welding	
26	49	Walk-in Blast	09-A-757
27 FUG	67	Large Mold Casting Cooling	Internally Vented

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
29	39	Core Spray Booth	98-A-366-S3
33	21	Pouring & Cooling	97-A-659-S6
	63	Induction Furnace	
34	48	New Sand 150 Day Tank	97-A-664-S1
SCC01	SCC01	Tumble Blast (70 cu ft)	02-A-656-S3
B2	SCC Boiler	Boiler	01-A-233-S2
08 FUG	16	Scrap & Charge Handling	Internally Vented
24 FUG	45	Casting Grinding	
	47	Casting Salvage	
51	17	Electric Arc Furnace	06-A-450-S4
106	106	Emergency Diesel Engine—Sprinkler System Pump	N/A

Insignificant Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
EU02	Bag Dumping Fugitives
EU12	Shell Core
EU13	Shell Core
EU18	Induction Furnace
EU19	Induction Furnace
EU38A	Resin Bulk Storage Tanks
EU38B	Resin Bulk Storage Tanks
EU43	Hawkeye Heating
EU53	Haul Road
EU 60	Diesel Oil Tank (500 gallons)
EU61	Isopropyl Alcohol Tanks (2x250 gallons)
EU62	Safety Kleen Parts Washers (35 gallons)
EU64	Kerosene Tank
EU65	Gasoline Tank
EU68	#7 Kwic Arc Booth
EU-70	Pattern Shop Dust Collector (SUE)
EU-71	Isocure Tank – Part I Resin (587 gal.)
EU-72	Isocure Tank – Part II Resin (587 gal.)
EU-73	Per-Mix Tank – Part I Resin (587 gal.)
EU-74	Per-Mix Tank – Part II Resin (587 gal.)
EU-75	Per-Mix Tank – Catalyst (1315 gal.)
EU-76	Dash 1&2 Tank – Part I Resin (1315 gal.)
EU-77	Dash 1&2 Tank – Part II Resin (1315 gal.)
EU-77	Dash 1&2 Tank – Catalyst (1315 gal.)
EU-81	Furnace Cooling Tower
EU-82	Heat Treat Oven Cooling Tower
EU-83	Palmer Cooling Tower
EU101	#6 Ladle Preheat
EU102	#5 Heat Treat Oven – Stone
EU104	Small Finish Shop Dust Collector
EU105	Viking Blast Dust Collector

II. Plant-Wide Conditions

Facility Name: Keokuk Steel Castings, A Matrix Metals LLC Company
Permit Number: 04-TV-012R1-M001

Permit conditions are established in accord with 567 Iowa Administrative Code rule 22.108

Permit Duration

The term of this permit is: five (5) years
Commencing on: September 30, 2010
Ending on: September 29, 2015

Amendments, modifications and reopenings of the permit shall be obtained in accordance with 567 Iowa Administrative Code rules 22.110 - 22.114. Permits may be suspended, terminated, or revoked as specified in 567 Iowa Administrative Code Rules 22.115.

Emission Limits
Unless specified otherwise in the Emission Point-Specific Conditions, the following limitations and supporting regulations apply to all emission points at this plant:

Opacity (visible emissions): 40% opacity
Authority for Requirement: 567 IAC 23.3(2)"d"

Sulfur Dioxide (SO_2): 500 parts per million by volume
Authority for Requirement: 567 IAC 23.3(3)"e"

Particulate Matter (PM)
No person shall cause or allow the emission of Particulate Matter (PM) from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed after July 21, 1999, the emission of Particulate Matter (PM) from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24.
For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of Particulate Matter (PM) from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).
Authority for Requirement: 567 IAC 23.3(2)"a"

Fugitive Dust: Attainment and Unclassified Areas - No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved public roads, without taking reasonable precautions to prevent Particulate Matter (PM) in quantities sufficient to create a nuisance, as defined in Iowa Code section 657.1, from becoming airborne. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not limited to, the following procedures.

1. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
2. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.
3. Installation and use of containment or control equipment, to enclose or otherwise limit the emissions resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizers or limestone.
4. Covering at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.
5. Prompt removal of earth or other material from paved streets or to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means.

Authority for Requirement: 567 IAC 23.3(2)"c"

Compliance Plan

The owner/operator shall comply with the applicable requirements listed below. The compliance status is based on information provided by the applicant.

Unless otherwise noted in Section III of this permit, Keokuk Steel Castings is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which become effective during the permit term, Keokuk Steel Castings shall comply with such requirements in a timely manner.

Authority for Requirement: 567 IAC 22.108(15)

NSPS and NESHAP Applicability

The emissions units of Keokuk Steel Castings are not subject to a NSPS subpart at this time.

Keokuk Steel Castings is subject to 40 CFR 63 Subpart A – NESHAP General Provisions.

Authority for Requirement: 40 CFR 63 Subpart A
567 IAC 23.1(4)"a"

Iron and Steel Foundry NESHAP – 40 CFR 63 Subpart EEEEE

Keokuk Steel Castings shall comply with all applicable requirements of 40 CFR 63 Subpart EEEEE National Emission Standards for Iron and Steel Foundries.

Authority for Requirement: 40 CFR Part 63 Subpart EEEEE
567 IAC 23.1(4)"de"

III. Emission Point-Specific Conditions

Facility Name: Keokuk Steel Castings, A Matrix Metals LLC Company
Permit Number: 04-TV-012R1-M001

Emission Point ID Number: 01

Associated Equipment

Associated Emission Unit ID Numbers: 01

Emission Unit vented through this Emission Point: 01
Emission Unit Description: New Sand Tank
Raw Material/Fuel: Silica Sand
Rated Capacity: 25 tons/hr
Control Equipment: CE-01: Cartridge Filter

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 35.4 lb/hr [(1)]
[(1)] Based on a process weight rate of 25 tons/hr
Authority for Requirement: 567 IAC 23.3(2)"a"
Iowa DNR Construction Permit 76-A-100

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Cartridge Filter System Agency Operation and Maintenance Plan

Monitoring Guidelines

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation, and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement.

If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the excursion to the department and conduct source testing within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates compliance with emission limits, new indicator ranges must be set for monitoring, and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, the facility must submit a compliance schedule to the department within 60 days of obtaining test results. This schedule should outline the corrective action planned by the facility, and also include a plan to demonstrate compliance once corrective measures have been completed.

General

- Periodic Monitoring is not required during periods of time greater than one day in which the source does not operate.

Weekly

- Visible emissions shall be observed on a weekly basis to ensure no visible emissions during the material handling operation of the unit. If visible emissions are observed this would be an exceedence not a violation and action will be taken as soon as possible, but no later than eight hours. If weather conditions prevent the observer from conducting an observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake readings at approximately two-hour intervals throughout the day. If unsuccessful that day due to weather, an observation shall be made the following day the unit operates.

Maintain a written record of the observation and any action resulting from the observation.

Monthly

- Check the cleaning sequence of the cartridge filter system.
- Pulse jet baghouse - check the air delivery system
- Check the hopper functions and performance.
- If leaks or abnormal conditions are detected, the appropriate measures for remediation will be implemented within eight hours.

Maintain a written record of the inspection and any action resulting from the inspection.

Quarterly

- Thoroughly inspect cartridge filters for leaks and wear. (Look for obvious holes or tears in the cartridge filters.)
- If leaks or abnormal conditions are detected, the appropriate measures for remediation will be implemented within eight hours. Cartridge filter replacement should be documented by identifying the date, time and location of the cartridge filter in relationship to the other cartridge filters. The location should be identified on an overhead drawing of the cartridge filter layout in the cartridge filter system.

Maintain a written record of the inspection and any action resulting from the inspection.

Semiannual

- Every six months, inspect all components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods.
- If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight hours.

Maintain a written record of the inspection and any action resulting from the inspection.

Record Keeping and Reporting

Maintenance and inspection records will be kept for five years and be available upon request.

Quality Control

- The filter equipment will be operated and maintained according to the manufacturer's recommendations.
- An adequate inventory of spare parts shall be kept.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 02

Associated Equipment

Associated Emission Unit ID Numbers: 02

Emission Unit vented through this Emission Point: 02
Emission Unit Description: Thermal Sand Reclaim System
Raw Material/Fuel: Silica Sand
Rated Capacity: 6 tons/hr
Control Equipment: CE-04; Baghouse #11

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% (1)
(1) An exceedence of the indicator opacity of 10% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 09-A-188

Pollutant: PM_{10}
Emission Limit(s): 2.4 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 09-A-188

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.05 gr/dscf, 5.57 lb/hr
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 09-A-188

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"
Iowa DNR Construction Permit 09-A-188

Pollutant: Nitrogen Oxides (NO_x)
Emission Limit(s): 7.62 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 09-A-188

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 3.6 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 09-A-188

Pollutant: Carbon Monoxide (CO)
Emission Limit(s): 22.7 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 09-A-188

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

NSPS and NESHAP Applicability

There are no New Source Performance Standards (NSPS) for this source type at this time.

This facility is subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries (40 CFR 63 Subpart EEEEE; 567 IAC 23.1(4)"de").

Operating Limits:

A. The owner/operator shall install, maintain, and operate equipment to continuously monitor and record the temperature in the Thermal Sand Reclaim System. The temperature measurement device shall be in a location where the temperature readings are representative of the temperature in the portion of the Thermal Sand Reclaim System in the sand processing chamber.

B. While the Thermal Sand Reclaim System is processing sand, the temperature measured in the Thermal Sand Reclaim System shall be maintained above the average temperature observed over the most recent compliance test which demonstrated compliance with the VOC emission limit listed in condition 10 of this permit.

C. The baghouse associated with the Thermal Sand Reclaim System shall be operated and maintained according to the manufacturer's specifications.

Reporting and Recordkeeping:
All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

A. Continuously record the temperature of the Thermal Sand Reclaim System.

B. For each time the Thermal Sand Reclaim System starts or stops processing sand, record the date and time and whether sand processing was starting or ending.

C. Maintain a copy of the baghouse manufacturer's recommendation for the operation and maintenance of the baghouse.

D. Maintain a log of all inspection and maintenance activities that are undertaken on the baghouse associated with this equipment. This log must include, but should not necessarily be limited to, the date and time the activity was undertaken as well as any issues noted or addressed during the activity.

Authority for Requirement: Iowa DNR Construction Permit 09-A-188

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 80
Stack Opening, (inches, dia.): 42
Exhaust Flow Rate (scfm): 24,850
Exhaust Temperature (°F): 180
Discharge Style: Vertical, unobstructed
Authority for Requirement: Iowa DNR Construction Permit 09-A-188

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☒ **No** ☐

Authority for Requirement: 567 IAC 22.108(3)

CAM Plan for EP-02 Baghouse

This emission point shall conform to the conditions listed below.

1. Background

A. Emission Unit:
Facility: Keokuk Steel Castings, Inc.
Description: Thermal Sand Reclaim System
Emission Point Identification Number: EP-02
Emission Unit Identification Numbers: EU-02
Control Device Identification Number: CE-04

B. Applicable Regulations, Emission Limits, and Monitoring Requirements:
Regulation No.: 567 IAC 23.3(2)"d"
567 IAC 23.4(6)
567 IAC 23.3(3)"e"
Iowa DNR Construction Permit 76-A-100

Opacity Emission Limit: 40%
PM_{10} Emission Limit: 2.4 lb/hr
Particulate Emission Limit: 0.05 gr/dscf, 5.57 lb/hr
Current Monitoring Requirement: Daily pressure drop across baghouse
Weekly opacity

C. Control Technology:
Baghouse

2. Monitoring Approach

The key elements of the monitoring approach are presented in Table A. The selected performance indicators are baghouse differential pressure and visible emissions.

Table A—Monitoring Approach

Applicable Requirements	PM Limits	Opacity
General Monitoring Approach	Pressure drop readings	Visible emissions observations
Daily	Check baghouse differential pressure.	
Weekly		Visible emissions shall be observed on a weekly basis to ensure no visible emissions during the material handling operation of the unit. If visible emissions are observed this would be an exceedence not a violation

		and action will be taken as soon as possible, but no later than eight hours. If weather conditions prevent the observer from conducting an observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake readings at approximately two-hour intervals throughout the day. If unsuccessful that day due to weather, an observation shall be made the following day the unit operates. Maintain a written record of the observation and any action resulting from the observation.
Quarterly	Thoroughly inspect cartridge filters for leaks and wear. (Look for obvious holes or tears in the cartridge filters.) If leaks or abnormal conditions are detected, the appropriate measures for remediation will be implemented within eight hours. Cartridge filter replacement should be documented by identifying the date, time and location of the cartridge filter in relationship to the other cartridge filters. The location should be identified on an overhead drawing of the cartridge filter layout in the cartridge filter system. Maintain a written record of the inspection and any action resulting from the inspection.	
Semi-annually	Every six months, inspect all components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods. If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight hours. Maintain a written record of the inspection and any action resulting from the inspection.	
Indicator Range/Source	Normal Operating Pressure Range: 2 – 8 inches H_2O.	Presence of visible emissions.
Data Collection Frequency	Daily: Pressure range observations. Quarterly and Semiannually: Equipment inspections.	Weekly: Visible emissions observations. Quarterly and Semiannually: Equipment inspections.
Recordkeeping	Daily logs of pressure readings. Weekly logs of emissions observations readings.	

	All daily, monthly, quarterly, and semi-annually required inspections and maintenance. The date, time, and the location of maintenance or repair performed. All corrective actions resulting from compliance indicators and inspections and maintenance. Excursion, indicator opacity exceedence, and excess emissions reports. Manual log entries are made based on gauge readings and the observation (or not) of visible emissions. Maintenance personnel record all maintenance/inspection performed on the wet scrubber and actions resulting from the inspection. Maintenance and inspection records will be kept for at least five (5) years and be available to the IDNR upon request.
Quality Control	The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. Visible emissions observer trained per Method 22.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 03 (Sand Reclaim System)

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity (tons/hr)	CE ID & Description
03	03	Sand Heaters	Silica Sand	20	CE-02: Baghouse (BH#7)
	04	Sand Heaters	Silica Sand	20	
	07a	Mold Mixer	Silica Sand	10	
	07b	Mold Mixer	Silica Sand	10	
	11	Palmer Sand Conditioner	Silica Sand	12.5	
	30a	Reclaim Sand 150 Day Tank	Sand	20	
	30b	300 System Reclaim Sand Tank	Sand	300 tons & 30 tons sand/hr	

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

The emissions from this equipment shall not exceed the following specified levels.

Pollutant: Opacity
Emission Limit(s): 40% (1)

(1) An exceedence of the indicator opacity of 0% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 77-A-176-S7

Pollutant: PM_{10}
Emission Limit(s): 0.20 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 77-A-176-S7

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.05 gr./dscf
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 77-A-176-S7

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 42.4
Stack Opening, (inches, dia.): 24
Exhaust Flow Rate (scfm): 1,900
Exhaust Temperature (°F): 88
Discharge Style: Vertical, unobstructed
Authority for Requirement: Iowa DNR Construction Permit 77-A-176-S7

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

The data pertaining to this plan shall be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 05

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity (tons/hr) [1]	CE ID & Description
05	05	Demmler Core Machine	Sand/Resin	4.5 Sand	CE-14: DES-68 Scrubber
	06	Small Blower Core Machine	Sand/Resin	4.5 Sand	
	08	Redford CB22 Core Machine	Sand/Resin	12 Sand	
	09	Redford CB22 Core Machine	Sand/Resin	12 Sand	
	10	Redford CB26 Core Machine	Sand/Resin	12 Sand	

[1] The maximum amount of resin used in the core machines covered by construction permit 96-A-695-S1 shall not exceed 4600 tons per twelve-month rolling period.

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

The emissions from this equipment shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% [1]

[1] An exceedence of the indicator opacity of 0% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 96-A-695-S1

Pollutant: PM_{10}
Emission Limit(s): 0.31 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 96-A-695-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.05 gr/dscf
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 96-A-695-S1

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 2.97 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 96-A-695-S1

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

NSPS and NESHAP Applicability

This project is not subject to the New Source Performance Standards (NSPS) at this time.

The emission units are of the source type subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries – Subpart EEEEE; however, the facility does not utilize triethylamine (TEA) in the core making process. Therefore, it is not subject to the requirements of this subpart [40 CFR 63.7690(a)(11)]. Should the facility use TEA in the core making line it shall be subject to the requirements of the subpart.

Authority for Requirement: Iowa DNR Construction Permit 96-A-695-S1

Operating Limits:

A. The maximum amount of resin used in the core machines covered by this permit (Permit 96-A-695-S1) shall not exceed 4600 tons per twelve-month rolling period.

B. The resin used in the core machines shall not contain triethylamine (TEA).

Reporting Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

A. The permitee shall calculate and record the monthly total and the 12-month rolling total amount of resin used in the core machines, in applicable units.

B. The permitee shall record the VOC, Individual HAP and Total HAP content of any resin used in the core machines, in applicable units.

C. The permitee shall maintain manufacturer/vendor provided information (i.e., Material Safety Data Sheets (MSDS), technical data sheets, etc.) of all materials used at the facility, which clearly indicates the VOC and HAP content of that material.

Authority for Requirement: Iowa DNR Construction Permit 96-A-695-S1

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 42
Stack Opening, (inches, dia.): 22 x 32
Exhaust Flow Rate (scfm): 4,350
Exhaust Temperature (°F): 72
Discharge Style: Vertical Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 96-A-695-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements
The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☒ **No** ☐

CAM Plan for EP-05 Scrubber
This emission point shall conform to the conditions listed below.

1. Background

   A. Emission Unit:
   Facility: Keokuk Steel Castings, Inc.
   Description: Demmler Core Machine, Small Blower Core Machine, Redford CB22 Core Machine, Redford CB22 Core Machine, & Redford CB26 Core Machine
   Emission Point Identification Number: EP-05
   Emission Unit Identification Numbers: EU-05, EU-06, EU-08, EU-09 & EU-10
   Control Device Identification Number: CE-14

   B. Applicable Regulations, Emission Limits, and Monitoring Requirements:
   Regulation No.: 567 IAC 23.3(2)"d"
   567 IAC 23.4(6)
   Iowa DNR Construction Permit 96-A-695-S1

   Opacity Emission Limit: 40%

Particulate Emission Limit: PM_{10},: 0.31 lb/hr, PM: 0.05 gr/scf
Volatile Organic Compounds (VOC) Emission Limit: 2.97 lb/hr
Current Monitoring Requirement: Daily pressure drop across baghouse
Weekly opacity

C. Control Technology:
DES-68 Scrubber

2. Monitoring Approach

The key elements of the monitoring approach are presented in Table A. The selected performance indicators are cyclone differential pressure and visible emissions.

Table A—Monitoring Approach

Applicable Requirements	PM Limits	Opacity
General Monitoring Approach	Pressure range readings	Visible emissions observations
Daily	Check and document the liquid pressure across the scrubber on a daily basis. If the liquid pressure falls out of the normal operating pressure range (1 – 6 inches H_2O) corrective action will be taken within 8 hours to return the liquid pressure to normal.	Visible emissions shall be observed on a daily basis to ensure no visible emissions during the material handling operation of the unit. Conduct observations of the stack and areas adjacent to the stack to determine if droplet reentrainment is occurring from an improperly operating mist eliminator. The signs of droplet reentrainment may include fallout of solid-containing droplets, discoloration of the stack and adjacent surfaces, or a mud lip around the stack. If droplet reentrainment is occurring, the appropriate measures for remediation will be implemented within eight (8) hours.
Weekly	Check liquid pressure gauges on supply headers to the scrubber to monitor for problems such as nozzle pluggage, header pluggage, and nozzle erosion. Pluggage problems are indicated by higher than normal pressures and erosion problems are indicated by less than normal pressures.	N/A

Quarterly	Conduct a walk-around inspection of the entire system to search for leaks. If leaks in the system are detected, the appropriate measures for remediation will be implemented within eight (8) hours.	
Semi-annually	Conduct an internal inspection of the scrubber to search for signs of erosion, corrosion, or solids deposits in ductwork, spray nozzles, and adjustable throat dampers. If any of these conditions exist the appropriate measures for remediation will be implemented within eight (8) hours.	
Indicator Range/Source	Normal Operating Pressure Range: 1 – 6 inches H_2O.	Presence of visible emissions.
Data Collection Frequency	Daily: Pressure range observations. Quarterly and Semiannually: Equipment inspections.	Weekly: Visible emissions observations. Quarterly and Semiannually: Equipment inspections.
Recordkeeping	Daily logs of emissions observations readings. Weekly logs of pressure readings. All daily, monthly, quarterly, and semi-annually required inspections and maintenance. The date, time, and the location of maintenance or repair performed. All corrective actions resulting from compliance indicators and inspections and maintenance. Excursion, indicator opacity exceedence, and excess emissions reports. Manual log entries are made based on gauge readings and the observation (or not) of visible emissions. Maintenance personnel record all maintenance/inspection performed on the wet scrubber and actions resulting from the inspection. Maintenance and inspection records will be kept for at least five (5) years and be available to the IDNR upon request.	
QA/QC	The wet scrubber and monitoring equipment will be operated and maintained according to manufacturer recommendations and/or as outlined in the above monitoring requirements. Keokuk Steel Castings will maintain an adequate inventory of spare parts. Visible emissions observer trained per Method 22.	

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 9B

Associated Equipment

Associated Emission Unit ID Numbers: 17

Emission Unit vented through this Emission Point: 17
Emission Unit Description: Electric Arc Furnace and Canopy Area
Raw Material/Fuel: Steel Scrap & Castings
Rated Capacity: 9.5 tons/hr
Control Equipment: CE-20; Baghouse (BH#5)

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from this equipment shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% (1)
(1) An exceedence of the indicator opacity of 'no visible emissions' will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 06-A-449-S3

Pollutant: NESHAP Opacity
Emission Limit(s): 20% (1)
(1) Opacity limit from 40 CFR Part 63 Subpart EEEEE 63.7690(7) for the building structure or housing, which in this case refers to the canopy. Iowa adoption of National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Subpart EEEEE by reference.
Authority for Requirement: 40 CFR Part 63 Subpart EEEEE
567 IAC 23.1(4)"de"
Iowa DNR Construction Permit 06-A-449-S3

Pollutant: PM_{10}
Emission Limit(s): 1.91 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 06-A-449-S3

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.005 gr/dscf [2]

[2] Emission limits established in NESHAP Subpart EEEEE for electric arc furnaces as specified in 40 CFR Part 63 Subpart EEEEE 63.7690(a)(1)(i). The facility is required to meet the emission limit for Particulate Matter (PM) or, alternatively the emission limit for total metal HAPs.

Authority for Requirement: 40 CFR Part 63 Subpart EEEEE
567 IAC 23.1(4)"de"
Iowa DNR Construction Permit 06-A-449-S3

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"
Iowa DNR Construction Permit 06-A-449-S3

Pollutant: Total Metal HAP
Emission Limit(s): 0.0004 gr/dscf [3]

[3] Emission limits established in NESHAP Subpart EEEEE for electric arc furnaces as specified in 40 CFR Part 63 Subpart EEEEE 63.7690(a)(1)(ii). The facility is required to meet the emission limit for Particulate Matter (PM) or, alternatively the emission limit for total metal HAPs.

Authority for Requirement: 40 CFR Part 63 Subpart EEEEE
567 IAC 23.1(4)"de"
Iowa DNR Construction Permit 06-A-449-S3

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

NSPS and NESHAP Applicability

There is no applicable NSPS at this time.

The Electric Arc Furnace (EU 17) is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart EEEEE-*National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries* as specified in 40 CFR Part 63 §63.7681. Except as specified in §63.7683(b), Keokuk Steel Castings must comply with each emission limitation, work practice standard, and operation and maintenance requirement in Subpart EEEEE that applies to Keokuk Steel Castings no later than April 23, 2007.

The Electric Arc Furnace (EU 17) is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart A-*General Provisions* as specified in 40 CFR Part 63 §63.7760 (Table 1).

Operating Limits:
Operating limits for this emission unit shall be:

A. As specified in §63.7700, Keokuk Steel Castings must comply with the certification requirements in paragraph (b) of §63.7700 or prepare and implement a plan for the selection and inspection of scrap according to the requirements in paragraph (c) of §63.7700.

B. As specified in §63.7710(b), Keokuk Steel Castings must prepare and operate at all times according to a written operation and maintenance plan for each capture and collection system and control device an emissions source subject to an emission limit in §63.7690(a). Which includes but is not limited to the following:

   (1) As specified in §63.7710(b)(3), Preventative maintenance plan for Baghouse associated with EP9B, including a preventative maintenance schedule that is consistent with the manufacturer's instructions and for routine and long-term maintenance.

   (2) As specified in §63.7710(b)(4), A site-specific monitoring plan for each bag leak detection system. The owner and operator shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan must address all the items identified in paragraphs (b)(4)(i) through (v) of §63.7710(b)(4).

   (3) As specified in §63.7710(b)(5), Corrective action plan for Baghouse associated with EP9B. The plan must include the requirement that, in event a bag leak detection system alarm is triggered, Keokuk Steel Castings must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon practicable.

C. As specified in §63.7741(b), Keokuk Steel Castings must install, operate, and maintain a bag leak detection system according to the requirements in paragraphs (b)(1) through (7) of §63.7741(b).

Authority for Requirement: Iowa DNR Construction Permit 06-A-449-S3

Reporting and Recordkeeping:
All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

As specified in §63.7753, Keokuk Steel Castings must keep each record onsite for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report and record. As specified in §63.7745(b), Keokuk Steel Castings must keep all operation and maintenance plans required by NESHAP Subpart EEEEE for the life of the iron foundry or until the iron foundry is no longer subject to the requirements of NESHAP Subpart EEEEE.

A. As specified in §63.7740(b), Keokuk Steel Castings must at all times monitor the relative change in PM loading using a bag leak detection system according requirements in

§63.7741(b) and conduct inspections according to the requirements specified in (b)(1) through (8) of §63.7740(b). Requirements of (b)(1) through (8) of §63.7740(b) are specified below:

(1) As specified in §63.7740(b)(1), Monitor the pressure drop across each cell of Baghouse associated with EP9B each day to ensure pressure drop is in normal operating range identified in manual.

(2) As specified in §63.7740(b)(2), Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.

(3) As specified in §63.7740(b)(3), Check compressed air supply for pulse-jet baghouses each day.

(4) As specified in §63.7740(b)(4), Monitor cleaning cycles to ensure proper operation using appropriate methodology.

(5) As specified in §63.7740(b)(5), Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.

(6) As specified in §63.7740(b)(6), Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or lying on their sides.

(7) As specified in §63.7740(b)(7), Confirm the physical integrity of Baghouse associated with EP9B through quarterly visual inspections of Baghouse associated with EP9B interior for air leaks.

(8) As specified in §63.7740(b)(8), Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

B. As specified in §63.7743(c)(1), maintain records of the times the bag leak detection system alarm sounded, and for each valid alarm, the time owner/operator initiate corrective action, the corrective action taken, and the date on which corrective action was completed.

C. As specified in §63.7743(c)(2), inspect and maintain Baghouse associated with EP9B according to the requirements of §63.7740(b)(1) through (8) and recording all information needed to document conformance with these requirements.

D. As specified in §63.7744, Keokuk Steel Castings must maintain records that document continuous compliance with certification requirements in §63.7700(b) or with procedures in scrap selection and inspection plan required in 63.7700(c). Records documenting compliance with the scrap selection and inspection plan must include a copy (kept onsite) of the procedures used by scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable.

E. As specified in 63.7745(a)(2), Record all information needed to document conformance with preventive maintenance plan required by §63.7710(b)(3).

F. As specified in 63.7745(a)(3), Record all information needed to document conformance with site specific monitoring plan required by §63.7710(b)(4).

G. As specified in 63.7745(a)(4), Record all information needed to document conformance with corrective action plan required by §63.7710(b)(5).

H. As specified §63.7752(a), Keokuk Steel Castings must keep the records specified in paragraphs (a)(1) through (4) of §63.7752(a).

I. As specified in §63.7752(c), Keokuk Steel Castings must keep records required by §§63.7743, 63.7744, and 63.7745 to show continuous compliance with each emission limitation, work practice standard, and operation and maintenance requirement that applies.

Authority for Requirement: Iowa DNR Construction Permit 06-A-449-S3

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 60.2
Stack Opening, (inches, dia.): 60
Exhaust Flow Rate (scfm): 44,600
Exhaust Temperature (°F): 97
Discharge Style: Vertical, unobstructed
Authority for Requirement: Iowa DNR Construction Permit 06-A-449-S3

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – PM (federal)

1st Stack Test – Demonstrated Compliance on October 19, 2007

Test Method – 40 CFR 60, Appendix A, Method 5

2nd Stack Test – Within 5-years of initial compliance testing (1)(2)

(1) As specified in §63.7731, Keokuk Steel Castings must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emission limitations no less frequently than every five (5) years.

(2) Stack testing shall be completed for EP9B and EP51 simultaneously. Stack testing completed on October 19, 2007, demonstrated compliance with the permitted emission limits and satisfies the requirements for an initial compliance demonstration.

Test Method – 40 CFR 60, Appendix A, Method 5

Authority for Requirement – Iowa DNR Construction Permit 06-A-449-S3

Pollutant – Total Metal HAP

1st Stack Test – Demonstrated Compliance on October 19, 2007

Test Method – Total Metal HAP – 40 CFR Part 60, Appendix A, Method 29

2nd Stack Test – Within 5-years of initial compliance testing (1)(2)

(1) As specified in §63.7731, Keokuk Steel Castings must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emission limitations no less frequently than every five (5) years.

(2) Stack testing shall be completed for EP9B and EP51 simultaneously. Stack testing completed on October 19, 2007, demonstrated compliance with the permitted emission limits and satisfies the requirements for an initial compliance demonstration.

Test Method – Total Metal HAP – 40 CFR Part 60, Appendix A, Method 29

Authority for Requirement – Iowa DNR Construction Permit 06-A-449-S3

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 10

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID & Description
10	14a	Mold Making	Sand	12.5 tons of sand/hr	CE-06, Cartridge Filter (BH #9)
	14b	Mold Making	Resin	12.5 tons of sand/hr	
	14d	Mold Making	Coating	12.5 tons of sand/hr	
	14e	Mold Making	Release agent	12.5 tons of sand/hr	
	15	Core Per-Mix	Resin	225 lb/hr	
	20	Ladle Preheat	Natural gas	0.0177 MMCF natural gas	
	21	Pouring & Cooling	Metal	10 tons of metal/hr	
	23	Large Casting Shakeout	Castings	2 tons/hr	
	26	Burn Rail	Castings	10 tons of metal/hr	
	29	GIW West	Reclaimed Sand	30 tons/hr	

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

The emissions from each emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% (1)

(1) An exceedence of the indicator opacity of 'no visible emissions' will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 08-A-329-S1

Pollutant: NESHAP Opacity
Emission Limit(s): 20% (2)

(2) Opacity limit from 40 CFR Part 63 Subpart EEEEE 63.7690(7) for the building structure or housing which in this case refers to the canopy. Iowa adoption of National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Subpart EEEEE by reference.

Authority for Requirement: 40 CFR Part 63 Subpart EEEEE
567 IAC 23.1(4)"de"
Iowa DNR Construction Permit 08-A-329-S1

Pollutant: PM_{10}
Emission Limit(s): 2.38 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 08-A-329-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.005 gr/dscf [3]

[3] Emission limits established in NESHAP Subpart EEEEE for electric arc furnaces as specified in 40 CFR Part 63 Subpart EEEEE 63.7690(a)(1)(i). The facility is required to meet the emission limit for Particulate Matter (PM) or, alternatively the emission limit for total metal HAPs.

Authority for Requirement: 40 CFR Part 63 Subpart EEEEE
567 IAC 23.1(4)"de"
Iowa DNR Construction Permit 08-A-329-S1

Pollutant: Total Metal HAP
Emission Limit(s): 0.0004 gr/dscf [4]

[4] Emission limits established in NESHAP Subpart EEEEE for electric arc furnaces as specified in 40 CFR Part 63 Subpart EEEEE 63.7690(a)(1)(ii). The facility is required to meet the emission limit for Particulate Matter (PM) or, alternatively the emission limit for total metal HAPs.

Authority for Requirement: 40 CFR Part 63 Subpart EEEEE
567 IAC 23.1(4)"de"
Iowa DNR Construction Permit 08-A-329-S1

Pollutant: VOHAP (Volatile Organic HAP)
Emission Limit(s): 20 PPMV [5]

[5] As an alternative to the work practice standard in §63.7700(e) for a scrap preheater at an existing iron and steel foundry, you must not discharge emissions of VOHAP through a conveyance to the atmosphere that exceed 20 ppmv.

Authority for Requirement: 40 CFR Part 63 Subpart EEEEE
567 IAC 23.1(4)"de"
Iowa DNR Construction Permit 08-A-329-S1

Operational Limits & Requirements

The owner/operator of each emission unit shall comply with the operational limits and requirements listed below.

NSPS and NESHAP Applicability

This project is not subject to the New Source Performance Standards (NSPS) at this time.

The facility is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart EEEEE-National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries as specified in 40 CFR Part 63 §63.7681. Except as specified in §63.7683(b), Keokuk Steel Castings must comply with each emission limitation, work practice standard, and operation and maintenance requirement in Subpart EEEEE that applies to Keokuk Steel Castings no later than April 23, 2007. This emission point includes units subject to the requirements of 40 CFR §63.7681.

The facility is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart A-General Provisions as specified in 40 CFR Part 63 §63.7760 (Table 1).

Operating Limits:

Operating limits for these emission units shall be:

A. As specified in §63.7700, Keokuk Steel Castings must comply with the certification requirements in paragraph (b) of §63.7700 or prepare and implement a plan for the selection and inspection of scrap according to the requirements in paragraph (c) of §63.7700.

B. As specified in §63.7710(b), Keokuk Steel Castings must prepare and operate at all times according to a written operation and maintenance plan for each capture and collection system and control device an emissions source subject to an emission limit in §63.7690(a). Which includes but is not limited to the following:

   (1) As specified in §63.7710(b)(3), Preventative maintenance plan for the baghouse associated with EP10, including a preventative maintenance schedule that is consistent with the manufacturer's instructions and for routine and long-term maintenance.

   (2) As specified in §63.7710(b)(4), A site-specific monitoring plan for each bag leak detection system. The owner and operator shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan must address all the items identified in paragraphs (b)(4)(i) through (v) of §63.7710(b)(4).

   (3) As specified in §63.7710(b)(5), Corrective action plan for the baghouse associated with EP10. The plan must include the requirement that, in event a bag leak detection system alarm is triggered, Keokuk Steel Castings must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon practicable.

C. As specified in §63.7741(b), Keokuk Steel Castings must install, operate, and maintain a bag leak detection system according to the requirements in paragraphs (b)(1) through (7) of §63.7741(b).

Authority for Requirement: Iowa DNR Construction Permit 08-A-329-S1

Reporting and Recordkeeping:
All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

As specified in §63.7753, Keokuk Steel Castings must keep each record onsite for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report and record. As specified in §63.7745(b), Keokuk Steel Castings must keep all operation and maintenance plans required by NESHAP Subpart EEEEE for the life of the iron foundry or until the iron foundry is no longer subject to the requirements of NESHAP Subpart EEEEE.

A. As specified in §63.7740(b), Keokuk Steel Castings must at all times monitor the relative change in PM loading using a bag leak detection system according requirements in §63.7741(b) and conduct inspections according to the requirements specified in (b)(1) through (8) of §63.7740(b). Requirements of (b)(1) through (8) of §63.7740(b) are specified below:
   (1) As specified in §63.7740(b)(1), Monitor the pressure drop across each cell of the baghouse associated with EP10 each day to ensure pressure drop is in normal operating range identified in manual.
   (2) As specified in §63.7740(b)(2), Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.
   (3) As specified in §63.7740(b)(3), Check compressed air supply for pulse-jet baghouses each day.
   (4) As specified in §63.7740(b)(4), Monitor cleaning cycles to ensure proper operation using appropriate methodology.
   (5) As specified in §63.7740(b)(5), Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.
   (6) As specified in §63.7740(b)(6), Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or lying on their sides.
   (7) As specified in §63.7740(b)(7), Confirm the physical integrity of the baghouse associated with EP10 through quarterly visual inspections of the baghouse associated with EP9B interior for air leaks.
   (8) As specified in §63.7740(b)(8), Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

B. As specified in §63.7743(c)(1), maintain records of the times the bag leak detection system alarm sounded, and for each valid alarm, the time owner/operator initiate corrective action, the corrective action taken, and the date on which corrective action was completed.

C. As specified in §63.7743(c)(2), inspect and maintain the baghouse associated with EP10 according to the requirements of §63.7740(b)(1) through (8) and recording all information needed to document conformance with these requirements.

D. As specified in §63.7744, Keokuk Steel Castings must maintain records that document continuous compliance with certification requirements in §63.7700(b) or with procedures in scrap selection and inspection plan required in 63.7700(c). Records documenting compliance with the scrap selection and inspection plan must include a copy (kept onsite) of the procedures used by scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable.

E. As specified in 63.7745(a)(2), Record all information needed to document conformance with preventive maintenance plan required by §63.7710(b)(3).

F. As specified in 63.7745(a)(3), Record all information needed to document conformance with site specific monitoring plan required by §63.7710(b)(4).

G. As specified in 63.7745(a)(4), Record all information needed to document conformance with corrective action plan required by §63.7710(b)(5).

H. As specified §63.7752(a), Keokuk Steel Castings must keep the records specified in paragraphs (a)(1) through (4) of §63.7752(a).

I. As specified in §63.7752(c), Keokuk Steel Castings must keep records required by §§63.7743, 63.7744, and 63.7745 to show continuous compliance with each emission limitation, work practice standard, and operation and maintenance requirement that applies.

Authority for Requirement: Iowa DNR Construction Permit 08-A-329-S1

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 73
Stack Opening, (inches, dia.): 52
Exhaust Flow Rate (scfm): 41,000
Exhaust Temperature (°F): 100
Discharge Style: Vertical, unobstructed
Authority for Requirement: Iowa DNR Construction Permit 08-A-329-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – PM (federal)
1st Stack Test – Demonstrated Compliance on August 11 and 12, 2008
Test Method – 40 CFR 60, Appendix A, Method 5
2nd Stack Test – Within 5-years of initial compliance testing (1)(2)

(1) Stack testing completed on August 11 and 12, 2008, demonstrated compliance with the permitted emission limits and satisfies the requirements for an initial compliance demonstration.

(2) As specified in §63.7731, Keokuk Steel Castings must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emission limitations no less frequently than every five (5) years.

Test Method – 40 CFR 60, Appendix A, Method 5
Authority for Requirement – Iowa DNR Construction Permit 08-A-329-S1

Pollutant – NESHAP Opacity
1st Stack Test – Demonstrated Compliance on August 11 and 12, 2008
Test Method – Opacity – 40 CFR 60, Appendix A, Method 9
2nd Stack Test – Every 6 months (1)

(1) Opacity limit is for the building or structure housing any iron and steel foundry emissions source (i.e., not point specific).

Test Method – Opacity – 40 CFR Part 60, Appendix A, Method 9
Authority for Requirement – Iowa DNR Construction Permit 08-A-329-S1

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 11FUG (Internally Vented)

Associated Equipment

Associated Emission Unit ID Numbers: 36

Emission Unit vented through this Emission Point: 36
Emission Unit Description: Special Products Grinding
Raw Material/Fuel: Castings
Rated Capacity: 0.83 tons/hr

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from this equipment shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limits: 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limits: 0.05 gr/dscf
Authority for Requirement: 567 IAC 23.4(6)

Monitoring Requirements
The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: Interior Venting

Associated Equipment

Associated Emission Unit ID Numbers: 37

Emission Unit vented through this Emission Point: 37
Emission Unit Description: 4 GMAW Casting Repair Welders
Raw Material/Fuel: Welding Wire
Rated Capacity: 17.28 pounds of weld wire per hour total

Applicable Requirements

Emission Limits (lb/hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit: 40% (1)
(1) If visible emissions are observed other than start-up, shutdown, or malfunction, a stack test may be required to demonstrate compliance with the particulate standard.
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 04-A-1101

Pollutant: PM_{10}
Emission Limit(s): 0.42 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 04-A-1101

Pollutant: Particulate Matter (PM)
Emission Limit: 0.1gr/dscf, 0.42 lb/hr
Authority for Requirement: 567 IAC 23.3(2)"a"
Iowa DNR Construction Permit 04-A-1101

Operational Limits & Requirements

The owner/operator of each emission unit shall comply with the operational limits and requirements listed below.

NSPS and NESHAP Applicability

As provided in 40 CFR 63.7681, the welders are subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart EEEEE – Iron and Steel Foundries.

Currently, no New Source Performance Standards (NSPS) apply to these units.

Authority for Requirement: Iowa DNR Construction Permit 04-A-1101

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 12

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID & Description
12	22	Small Shakeout	Reclaim Sand	15 tons/hr	CE-05: Baghouse
	28	GIW East	Reclaim Sand	30 tons/hr	
	35	Turntable Blast	Castings	1 ton/hr	

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

The emissions from this equipment shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% (1)

(1) If visible emissions are observed, the owner/operator shall promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 76-A-098-S6

Pollutant: PM_{10}
Emission Limit(s): 1.42 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 76-A-098-S6

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.05 gr/scf
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 76-A-098-S6

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 8.59 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 76-A-098-S6

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Operating Limits:

Operating limits for these emission units shall be:

A. The total sand throughput for emission units 22, 28, and 35 shall not exceed 25,000 lbs of sand per hour.

B. The owner/operator shall maintain the records required under 567 IAC 33.3(18)"f" for a period of ten (10) years.

C. To maintain DNR Project Numbers 08-345 and 08-641 as a minor project for Prevention of Significant Deterioration (PSD) for VOC emissions, the owner or operator shall have the following limits for a period ten (10) years from the date of start of operation (start-up date) of the Thermal Sand Reclaim System:
   a. Projects 08-345 and 08-641 include the installation of a new Thermal Sand Reclaim System and the increase in the allowed throughput of the equipment listed in condition 11 of this permit.
   b. The baseline throughput for the equipment associated with this permit shall be 36563.5 tons of sand. The baseline emissions for this equipment shall be the baseline throughput times an emission factor (in pounds of VOC per ton of sand) developed from the initial compliance test required under this permit. The baseline actual emissions shall remain unchanged throughout the ten (10) year period.
   c. The owner or operator shall determine the actual annual emissions for the equipment associated with this permit, in tons per year on a calendar-year basis, by multiplying the amount of sand processed over the calendar year by the emission factor (in pounds of VOC per ton of sand processed) developed from the most recent stack testing and dividing this value by 2000.
   d. Actual annual emissions minus the baseline actual emissions from the equipment associated with this permit shall not exceed 23.6 tons per calendar year of VOC. If the actual annual emissions minus the baseline emissions calculated does not exceed 23.6 tons per calendar year, these limits shall no longer apply 10 years after the date of start of operation (start-up date). If these limits are exceeded prior to expiration of the 10 year period, the owner or operator shall submit a report pursuant to 567 IAC 33.3(18)"f"(7).

Authority for Requirement: Iowa DNR Construction Permit 76-A-098-S6

Reporting & Record keeping:
Records shall be maintained on site for five (5) years and be available for inspection upon request by representatives of the Department of Natural Resources. These records shall show the following:

A. At the end of each working day, record the total amount of sand processed over the previous day.

B. At the end of each working day, record the number of hours this equipment processed sand over the previous working day.

C. Within seven (7) days of the end of each month, calculate and record the daily average hourly production rate for each day over the previous month by dividing the amount of sand processed on a given day by the number of hours the equipment operated on that given day.

D. For the purposes of maintaining Project 08-345 and 08-641 as a minor project for Prevention of Significant Deterioration (PSD), the owner or operator shall have the following monitoring conditions for a period ten (10) years from the date of start of operation (start-up date) of the Thermal Sand Reclaim System:
    a. Record the date the Thermal Sand Reclaim System starts operation.
    b. Record annually the actual VOC emissions from the equipment associated with this permit in tons per year on a calendar-year basis.
    c. Record annually the ton per year value of the actual emissions minus the baseline actual emissions.

Authority for Requirement: Iowa DNR Construction Permit 76-A-098-S6

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 66
Stack Opening, (inches, dia.): 37.5
Exhaust Flow Rate (scfm): 16,400
Exhaust Temperature (°F): 70
Discharge Style: Vertical, unobstructed
Authority for Requirement: Iowa DNR Construction Permit 76-A-098-S6

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☒ **No** ☐

Authority for Requirement: 567 IAC 22.108(3)

CAM Plan for EP-12 Baghouse

This emission point shall conform to the conditions listed below

1. Background

   A. Emission Unit:
   Facility: Keokuk Steel Castings, Inc.
   Description: Small Shakeout, GIW East, Turntable Blast
   Emission Point Identification Number: EP-01
   Emission Unit Identification Numbers: EU-22, EU-28, EU-35
   Control Device Identification Number: CE-05

   B. Applicable Regulations, Emission Limits, and Monitoring Requirements:
   Regulation No.: 567 IAC 23.3(2)"d"
   567 IAC 23.4(6)
   Iowa DNR Construction Permit 76-A-098-S6

   Opacity Emission Limit: 40%
   Particulate Emission Limit: PM_{10}, PM: 1.42 lb/hr, 0.05 gr/scf
   Current Monitoring Requirement: Daily pressure drop across baghouse
   Weekly opacity

   C. Control Technology:
   Baghouse

2. Monitoring Approach

The key elements of the monitoring approach are presented in Table A. The selected performance indicators are baghouse differential pressure and visible emissions.

Table A—Monitoring Approach

Applicable Requirements	PM Limits	Opacity
General Monitoring Approach	Pressure drop readings	Visible emissions observations
Daily	Check for dust collector differential pressure.	
Weekly		Where applicable, visible emissions observations via Method 22 are performed weekly to ensure no visible emissions during the material handling operations of this unit. If a visible emissions reading cannot be made, record the differential pressure reading.
Monthly		Inspect cleaning sequence, air delivery system, and hopper functions to insure equipment is operating properly.
Quarterly		Inspect bags for leaks and wear.
Semi-Annually		All baghouse components are inspected every 6 months to insure proper operation.
Indicator Range/Source	Pressure range: 2 to 6 inches of water column.	Presence of visible emissions.
Data Collection Frequency	Daily: Pressure range observations. Quarterly and Semiannually: Equipment inspections.	Weekly: Visible emissions observations. Quarterly and Semiannually: Equipment inspections.

Recordkeeping	Daily logs of differential pressure readings. Weekly logs of emissions observations. All daily, monthly, quarterly, and semi-annually required inspections and maintenance. The date, time, and the location of the bag in relationship to the other bags must document bag replacement. All corrective actions resulting from compliance indicators and inspections and maintenance. Excursion, indicator opacity exceedence, and excess emissions reports. Maintenance and inspection records will be kept for at least five (5) years and be available to the IDNR upon request.
QA/QC	The baghouse and monitoring equipment will be operated and maintained according to manufacturer recommendations and/or as outlined in the above monitoring requirements. Keokuk Steel Castings will maintain an adequate inventory of spare parts. Visible emissions observer trained per Method 22.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 15

Associated Equipment

Associated Emission Unit ID Numbers: 25

Emission Unit vented through this Emission Point: 25
Emission Unit Description: Tumble Blast (34 cu ft)
Raw Material/Fuel: Castings
Rated Capacity: 3.06 tons/hr
Control Equipment: CE-07: Baghouse #8

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from this equipment shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% (1)
(1) An exceedance of the indicator opacity of (0%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 76-A-099-S2

Pollutant: PM_{10}
Emission Limit(s): 0.508 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 76-A-099-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.05 gr/dscf
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 76-A-099-S2

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

NSPS and NESHAP Applicability

These emission units are not subject to the New Source Performance Standards (NSPS) or the National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time.

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 37.7
Stack Opening, (inches, dia.): 15.25 x 22.25
Exhaust Flow Rate (scfm): 7,000
Exhaust Temperature (°F): 89
Discharge Style: Vertical, obstructed
Authority for Requirement: Iowa DNR Construction Permit 76-A-099-S2

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☒ **No** ☐

Authority for Requirement: 567 IAC 22.108(3)

CAM Plan for EP-15 Baghouse

This emission point shall conform to the conditions listed below.

1. Background

A. Emission Unit:
Facility: Keokuk Steel Castings, Inc.
Description: Tumble Blast (34 cu ft)
Emission Point Identification Number: EP-15
Emission Unit Identification Numbers: EU-25
Control Device Identification Number: CE-07

B. Applicable Regulations, Emission Limits, and Monitoring Requirements:
Regulation No.: 567 IAC 23.3(2)"d"
567 IAC 23.4(6)
Iowa DNR Construction Permit 76-A-099-S2

Opacity Emission Limit: 40%
PM_{10} Emission Limit: 0.508 lb/hr
Particulate Emission Limit: 0.05 gr/dscf
Current Monitoring Requirement: Daily pressure drop across baghouse
Weekly opacity

C. Control Technology:
Baghouse

2. Monitoring Approach

The key elements of the monitoring approach are presented in Table A. The selected performance indicators are baghouse differential pressure and visible emissions.

Table A—Monitoring Approach

Applicable Requirements	PM Limits	Opacity
General Monitoring Approach	Pressure drop readings	Visible emissions observations
Daily	Check baghouse differential pressure.	
Weekly		Visible emissions shall be observed on a weekly basis to ensure no visible emissions during the material handling operation of the unit. If visible emissions are observed this would be an exceedence not a violation and action will be taken as soon as possible, but no

		later than eight hours. If weather conditions prevent the observer from conducting an observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake readings at approximately two-hour intervals throughout the day. If unsuccessful that day due to weather, an observation shall be made the following day the unit operates. Maintain a written record of the observation and any action resulting from the observation.
Quarterly	Thoroughly inspect cartridge filters for leaks and wear. (Look for obvious holes or tears in the cartridge filters.) If leaks or abnormal conditions are detected, the appropriate measures for remediation will be implemented within eight hours. Cartridge filter replacement should be documented by identifying the date, time and location of the cartridge filter in relationship to the other cartridge filters. The location should be identified on an overhead drawing of the cartridge filter layout in the cartridge filter system. Maintain a written record of the inspection and any action resulting from the inspection.	
Semi-annually	Every six months, inspect all components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods. If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight hours. Maintain a written record of the inspection and any action resulting from the inspection.	
Indicator Range/Source	Normal Operating Pressure Range: 3 – 15 inches H_2O.	Presence of visible emissions.
Data Collection Frequency	Daily: Pressure range observations. Quarterly and Semiannually: Equipment inspections.	Weekly: Visible emissions observations. Quarterly and Semiannually: Equipment inspections.
Recordkeeping	Daily logs of pressure readings. Weekly logs of emissions observations readings.	

	All daily, monthly, quarterly, and semi-annually required inspections and maintenance. The date, time, and the location of maintenance or repair performed. All corrective actions resulting from compliance indicators and inspections and maintenance. Excursion, indicator opacity exceedence, and excess emissions reports. Manual log entries are made based on gauge readings and the observation (or not) of visible emissions. Maintenance personnel record all maintenance/inspection performed on the wet scrubber and actions resulting from the inspection. Maintenance and inspection records will be kept for at least five (5) years and be available to the IDNR upon request.
Quality Control	The filter equipment will be operated and maintained according to the manufacturer's recommendations. An adequate inventory of spare parts shall be kept. Visible emissions observer trained per Method 22.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 17

Associated Equipment

Associated Emission Unit ID Numbers: 31

Emission Unit vented through this Emission Point: 31
Emission Unit Description: 6 Kwic Arc Booths
Raw Material/Fuel: Carbon Rod
Rated Capacity: N/A
Control Equipment: CE-09: Baghouse

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from this equipment shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% (1)

(1) An exceedence of the indicator opacity of 0% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 01-A-181-S5

Pollutant: PM_{10}
Emission Limit(s): 0.79 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 01-A-181-S5

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.05 gr./dscf
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 01-A-181-S5

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

NSPS and NESHAP Applicability

There are no New Source Performance Standards (NSPS) for this source type at this time.

This facility is subject to the National Emission Standard for Hazardous Air Pollutants (NESHAP) for Iron and Steel Foundries (40 CFR 63 Subpart EEEEE; 567 IAC 23.1(4)"de"). However, this standard does not cover this specific source type. No others NESHAP cover this source type at this time.

Authority for Requirement: Iowa DNR Construction Permit 01-A-181-S5

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 35
Stack Opening, (inches, dia.): 29.5
Exhaust Flow Rate (scfm): 13,400
Exhaust Temperature (°F): 70
Discharge Style: Vertical, Unobstructed
Authority for Requirement: Iowa DNR Construction Permit 01-A-181-S5

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Authority for Requirement: 567 IAC 22.108(3)

Baghouse Agency Operation and Maintenance Plan

Monitoring Guidelines

The facility makes a commitment to take timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation, and necessary follow-up action to return operation within the indicator range. An excursion is determined by the averaged discrete data point over a period of time, or the presence of a monitored abnormal condition. An excursion does not necessarily indicate a violation of an applicable requirement.

If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the excursion to the department and conduct source testing within 90 days of the excursion to demonstrate compliance with applicable requirements. If the test demonstrates compliance with emission limits, new indicator ranges must be set for monitoring, and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, the facility must submit a compliance schedule to the department within 60 days of obtaining test results. This schedule should outline the corrective action planned by the facility, and also include a plan to demonstrate compliance once corrective measures have been completed.

General

- Periodic Monitoring is not required during periods of time greater than one day in which the source does not operate.

Weekly

- Visible emissions shall be observed on a weekly basis to ensure no visible emissions during the material handling operation of the unit. If visible emissions are observed this would be an exceedence not a violation and action will be taken as soon as possible, but no later than eight hours. If weather conditions prevent the observer from conducting an observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake readings at approximately two-hour intervals throughout the day. If unsuccessful that day due to weather, an observation shall be made the following day the unit operates.
- Check and document the baghouse pressure drop. If the pressure drop falls out of the normal operating range, (2 – 6 inches water), corrective action will be taken within 8 hours to return the pressure drop to normal.

Maintain a written record of the observation and any action resulting from the observation.

Monthly

- Check the cleaning sequence of the baghouse.
- Pulse jet baghouse - check the air delivery system
- Check the hopper functions and performance.

- If leaks or abnormal conditions are detected, the appropriate measures for remediation will be implemented within eight hours.

Maintain a written record of the inspection and any action resulting from the inspection.

Quarterly
- Thoroughly inspect bags for leaks and wear. (Look for obvious holes or tears in the bags.)
- If leaks or abnormal conditions are detected, the appropriate measures for remediation will be implemented within eight hours. Bag replacement should be documented by identifying the date, time and location of the bag in relationship to the other bags. The location should be identified on an overhead drawing of the bag layout in the baghouse.

Maintain a written record of the inspection and any action resulting from the inspection.

Semiannual
- Every six months, inspect all components that are not subject to wear or plugging, including structural components, housing, ducts, and hoods.
- If leaks or abnormal conditions are detected the appropriate measures for remediation will be implemented within eight hours.

Maintain a written record of the inspection and any action resulting from the inspection.

Record Keeping and Reporting
Maintenance and inspection records will be kept for five years and be available upon request.

Quality Control
- The filter equipment will be operated and maintained according to the manufacturer's recommendations.
- An adequate inventory of spare parts shall be kept.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 18-1, 18-2, 18-3, 18-4, 18-5, 18-6, 18-7 & 50-9 (Casting Heat Treat)

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity
18-1	32A	Casting Heat Treat (Oven #6511)	Natural Gas	7 MMBtu/hr
18-2	32B	Casting Heat Treat (Oven #6512)	Natural Gas	7 MMBtu/hr
18-3	32C	Casting Heat Treat (Oven #6513)	Natural Gas	7 MMBtu/hr
18-4	32C	Casting Heat Treat (Oven #6513)	Natural Gas	7 MMBtu/hr
18-5	32D	Casting Heat Treat (Oven #6514)	Natural Gas	7 MMBtu/hr
18-6	32D	Casting Heat Treat (Oven #6514)	Natural Gas	7 MMBtu/hr
18-7	32E	Casting Heat Treat (Oven #6515)	Natural Gas	4.9 MMBtu/hr

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

The emissions from each emission point shall not exceed the levels specified below.

EP	EU	Pollutant	Emission Limit	Authority for Requirement	
				567 IAC	Iowa DNR Construction Permit
18-1	32A	Opacity	40%(1)	23.3(2)"d"	01-A-219-S3
		PM_{10}	0.056 lb/hr	---	
		PM	0.1 gr/scf	23.3(2)"a"	
		SO_2	500 ppmv	23.3(3)"e"	
		NOx	0.70 lb/hr	---	
18-2	32B	Opacity	40%(1)	23.3(2)"d"	01-A-220-S4
		PM_{10}	0.056 lb/hr	---	
		PM	0.1 gr/scf	23.3(2)"a"	
		SO_2	500 ppmv	23.3(3)"e"	
		NOx	0.70 lb/hr	---	
18-3	32C	Opacity	40%(1)	23.3(2)"d"	01-A-221-S3
		PM_{10}	0.024 lb/hr	---	
		PM	0.1 gr/scf	23.3(2)"a"	
		SO_2	500 ppmv	23.3(3)"e"	
		NOx	0.40 lb/hr	---	
18-4	32C	Opacity	40%(1)	23.3(2)"d"	01-A-222-S3
		PM_{10}	0.024 lb/hr	---	
		PM	0.1 gr/scf	23.3(2)"a"	
		SO_2	500 ppmv	23.3(3)"e"	
		NOx	0.40 lb/hr	---	
18-5	32D	Opacity	40%(1)	23.3(2)"d"	01-A-223-S3
		PM_{10}	0.024 lb/hr	---	
		PM	0.1 gr/scf	23.3(2)"a"	
		SO_2	500 ppmv	23.3(3)"e"	
		NOx	0.40 lb/hr	---	
18-6	32D	Opacity	40%(1)	23.3(2)"d"	01-A-224-S3
		PM_{10}	0.024 lb/hr	---	
		PM	0.1 gr/scf	23.3(2)"a"	
		SO_2	500 ppmv	23.3(3)"e"	
		NOx	0.40 lb/hr	---	

EP	EU	Pollutant	Emission Limit	Authority for Requirement	
				567 IAC	Iowa DNR Construction Permit
18-7	32-E	Opacity	40%(1)	23.3(2)"d"	01-A-225-S4
		PM_{10}	0.048 lb/hr	---	
		PM	0.1 gr/scf	23.3(2)"a"	
		SO_2	500 ppmv	23.3(3)"e"	
		NOx	0.35 lb/hr	---	

(1) An exceedance of the indicator opacity of 0% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Operational Limits & Requirements

The owner/operator of each emission unit shall comply with the operational limits and requirements listed below.

NSPS and NESHAP Applicability

These emission units are not subject to the New Source Performance Standards (NSPS) or the National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time.

Operating Limits:

Operating limits for these emission points shall be:

These units shall operate on natural gas only.

Authority for Requirement: Iowa DNR Construction Permit 01-A-219-S3 (EP 18-1)
Iowa DNR Construction Permit 01-A-220-S4 (EP 18-2)
Iowa DNR Construction Permit 01-A-221-S3 (EP 18-3)
Iowa DNR Construction Permit 01-A-222-S3 (EP 18-4)
Iowa DNR Construction Permit 01-A-223-S3 (EP 18-5)
Iowa DNR Construction Permit 01-A-224-S3 (EP 18-6)

Emission Point Characteristics

Each emission point shall conform to the specifications listed below.

EP	Stack Characteristics					Authority for Requirement: Iowa DNR Construction Permit
	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia)	Exhaust Temp. (^{o}F)	Exhaust Flowrate	
18-1	55.58	Unobstructed Vertical	13 x 13	450	1,000 scfm	01-A-219-S3
18-2	54.92	Unobstructed Vertical	13 x 13	450	1,000 scfm	01-A-220-S4
18-3	46.58	Unobstructed Vertical	38.5 x 12.5	450	1,000 scfm	01-A-221-S3
18-4	46.58	Unobstructed Vertical	38.5 x 12.5	450	1,000 scfm	01-A-222-S3
18-5	33.67	Unobstructed Vertical	24.5 x 13	450	1,000 scfm	01-A-223-S3
18-6	33.67	Unobstructed Vertical	38.5 x 13	450	1,000 scfm	01-A-224-S3
18-7	35.2	Unobstructed Vertical	36.5	690	700 scfm	01-A-225-S4

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of each emission point shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 19

Associated Equipment

Associated Emission Unit ID Numbers: 33

Emission Unit vented through this Emission Point: 33 & 34
Emission Unit Description: Walk-in Blast
Raw Material/Fuel: Castings
Rated Capacity: 2 tons of castings/hr each
Control Equipment: CE-10: Baghouse, BH#2

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from this equipment shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% (1)

(1) An exceedence of the indicator opacity of 0% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 01-A-182-S3

Pollutant: PM_{10}
Emission Limit(s): 0.17 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 01-A-182-S3

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.05 gr/dscf
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 01-A-182-S3

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

NSPS and NESHAP Applicability

These emission units are not subject to the New Source Performance Standards (NSPS) or the National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time.

Emission Point Characteristics
This equipment shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 26.9
Stack Opening, (inches, dia.): 24
Exhaust Flow Rate (scfm): 12,700
Exhaust Temperature (°F): 80
Discharge Style: Vertical, unobstructed
Authority for Requirement: Iowa DNR Construction Permit 01-A-182-S3

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements
The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

The data pertaining to this plan shall be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 25-1N through 25-6S

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID & Description
EP25-1N	EU25-1N-A	Casting Welding/Weld Repair	Weld Wire & Rods	3 lb/hr (wire)	Cartridge Filters, CE25-1N
EP25-1N	EU25-1N-B	Carbon Rod Welding	Carbon Rods	5 lb/hr (rod)	Cartridge Filters, CE25-1N
EP25-2N	EU25-2N-A	Casting Welding/Weld Repair	Weld Wire & Rods	3 lb/hr (wire)	Cartridge Filters, CE25-2N
EP25-2N	EU25-2N-B	Carbon Rod Welding	Carbon Rods	5 lb/hr (rod)	Cartridge Filters, CE25-2N
EP25-3N	EU25-3N-A	Casting Welding/Weld Repair	Weld Wire & Rods	3 lb/hr (wire)	Cartridge Filters, CE25-3N
EP25-3N	EU25-3N-B	Carbon Rod Welding	Carbon Rods	5 lb/hr (rod)	Cartridge Filters, CE25-3N
EP25-4N	EU25-4N-A	Casting Welding/Weld Repair	Weld Wire & Rods	3 lb/hr (wire)	Cartridge Filters, CE25-4N
EP25-4N	EU25-4N-B	Carbon Rod Welding	Carbon Rods	5 lb/hr (rod)	Cartridge Filters, CE25-4N
EP25-5N	EU25-5N-A	Casting Welding/Weld Repair	Weld Wire & Rods	3 lb/hr (wire)	Cartridge Filters, CE25-5N
EP25-5N	EU25-5N-B	Carbon Rod Welding	Carbon Rods	5 lb/hr (rod)	Cartridge Filters, CE25-5N
EP25-6N	EU25-6N-A	Casting Welding/Weld Repair	Weld Wire & Rods	3 lb/hr (wire)	Cartridge Filters, CE25-6N
EP25-6N	EU25-6N-B	Carbon Rod Welding	Carbon Rods	5 lb/hr (rod)	Cartridge Filters, CE25-6N
EP25-1S	EU25-1S-A	Casting Welding/Weld Repair	Weld Wire & Rods	3 lb/hr (wire)	Cartridge Filters, CE25-1S
EP25-1S	EU25-1S-B	Carbon Rod Welding	Carbon Rods	5 lb/hr (rod)	Cartridge Filters, CE25-1S
EP25-2S	EU25-2S-A	Casting Welding/Weld Repair	Weld Wire & Rods	3 lb/hr (wire)	Cartridge Filters, CE25-2S
EP25-2S	EU25-2S-B	Carbon Rod Welding	Carbon Rods	5 lb/hr (rod)	Cartridge Filters, CE25-2S
EP25-3S	EU25-3S-A	Casting Welding/Weld Repair	Weld Wire & Rods	3 lb/hr (wire)	Cartridge Filters, CE25-3S
EP25-3S	EU25-3S-B	Carbon Rod Welding	Carbon Rods	5 lb/hr (rod)	Cartridge Filters, CE25-3S
EP25-4S	EU25-4S-A	Casting Welding/Weld Repair	Weld Wire & Rods	3 lb/hr (wire)	Cartridge Filters, CE25-4S

EP25-4S	EU25-4S-B	Carbon Rod Welding	Carbon Rods	5 lb/hr (rod)	Cartridge Filters, CE25-4S
EP25-5S	EU25-5S-A	Casting Welding/Weld Repair	Weld Wire & Rods	3 lb/hr (wire)	Cartridge Filters, CE25-5S
EP25-5S	EU25-5S-B	Carbon Rod Welding	Carbon Rods	5 lb/hr (rod)	Cartridge Filters, CE25-5S
EP25-6S	EU25-6S-A	Casting Welding/Weld Repair	Weld Wire & Rods	3 lb/hr (wire)	Cartridge Filters, CE25-6S
EP25-6S	EU25-6S-B	Carbon Rod Welding	Carbon Rods	5 lb/hr (rod)	Cartridge Filters, CE25-6S

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

The emissions from this equipment shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM_{10}
Emission Limit(s): 1.08 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 01-A-227-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.05 gr/dscf
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 01-A-227-S1

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

NSPS and NESHAP Applicability

This project is not subject to the New Source Performance Standards (NSPS) at this time.

The facility is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart EEEEE-*National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries* as specified in 40 CFR Part 63 §63.7681. Except as specified in §63.7683(b), Keokuk Steel Castings must comply with each emission limitation, work practice standard, and operation and maintenance requirement in Subpart EEEEE that applies to Keokuk Steel Castings no later than April 23, 2007. These emission units (Welding Operations) are not subject to the requirements of 40 CFR §63.7681.

The facility is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart A-*General Provisions* as specified in 40 CFR Part 63 §63.7760 (Table 1).

Failure to include any NSPS or NESHAP requirements as a part of this permit does not relieve the permittee from the requirement to comply with all applicable NSPS or NESHAP requirements.

Authority for Requirement: Iowa DNR Construction Permit 01-A-227-S1

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

The data pertaining to this plan shall be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 26 (Internally Vented)

Associated Equipment

Associated Emission Unit ID Numbers: 49

Emission Unit vented through this Emission Point: 49
Emission Unit Description: Walk-in Blast
Raw Material/Fuel: Castings & Shot
Rated Capacity: 2.5 tons/hr
Control Equipment: CE-26: Cartridge Filters

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from each emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limits: 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: PM_{10}
Emission Limit(s): 0.21 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 09-A-757

Pollutant: Particulate Matter (PM)
Emission Limits: 0.05gr/dscf
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 09-A-757

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

NSPS and NESHAP Applicability

This project is not subject to the New Source Performance Standards (NSPS) at this time.

The facility is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart EEEEE-*National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries* as specified in 40 CFR Part 63 §63.7681. Except as specified in §63.7683(b), Keokuk Steel Castings must comply with each emission limitation, work practice standard, and operation and maintenance requirement in Subpart EEEEE that applies to Keokuk Steel Castings no later

than April 23, 2007. These emission units (Welding Operations) are not subject to the requirements of 40 CFR §63.7681.

The facility is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart A-*General Provisions* as specified in 40 CFR Part 63 §63.7760 (Table 1).

Monitoring Requirements

The owner/operator of each emission point shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 27 FUG (Internally Vented)

Associated Equipment

Associated Emission Unit ID Numbers: 67

Emission Unit vented through this Emission Point: 67
Emission Unit Description: Large Casting Shakeout & Cooling
Raw Material/Fuel: Castings
Rated Capacity: 12.5 tons/hr
Control Equipment: CE-06: Baghouse

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from each emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limits: 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limits: 0.1gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"

Monitoring Requirements
The owner/operator of each emission point shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 29

Associated Equipment

Associated Emission Unit ID Numbers: 39

Emission Unit vented through this Emission Point: 39
Emission Unit Description: Core Spray Booth
Raw Material/Fuel: Core Wash
Rated Capacity: 100 lb/hr
Control Equipment: CE-13: Panel Filter

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from this equipment shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% (1)

(1) An exceedance of the indicator opacity of 0% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 98-A-366-S3
567 IAC 23.3(2)"d"

Pollutant: PM_{10}
Emission Limit(s): 0.12 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 98-A-366-S3

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr/dscf
Authority for Requirement: 567 IAC 23.4(13)
Iowa DNR Construction Permit 98-A-366-S3
567 IAC 23.4(13)

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

NSPS and NESHAP Applicability

This emission unit is not subject to the New Source Performance Standards (NSPS) or the National Emission Standards for Hazardous Air Pollutants (NESHAP) at this time.

Operating Limits:

Operating limits for these emission units shall be:

This emission unit shall not use more than 210,000 pounds of core coating slurry per 12-month rolling period.

Authority for Requirement: Iowa DNR Construction Permit 98-A-366-S3

Reporting & Record keeping:

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner. These records shall show the following:

A. Upon the issuance of this permit, determine the cumulative core coating slurry (in lbs/month) for each of the past twelve months.

B. After the issuance of this permit, determine the annual amount of core coating slurry (in lbs/yr) on a rolling-12-month basis for each month of operation.

Authority for Requirement: Iowa DNR Construction Permit 98-A-366-S3

Emission Point Characteristics

This equipment shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 26.36
Stack Opening, (inches, dia.): 22
Exhaust Flow Rate (scfm): 7,600
Exhaust Temperature (°F): 84
Discharge Style: Vertical, obstructed
Authority for Requirement: Iowa DNR Construction Permit 98-A-366-S3

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required?	**Yes** ☐ **No** ☒
Facility Maintained Operation & Maintenance Plan Required?	**Yes** ☒ **No** ☐
Compliance Assurance Monitoring (CAM) Plan Required?	**Yes** ☐ **No** ☒

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

The data pertaining to this plan shall be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 33

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity	CE ID & Description
33	21	Pouring & Cooling	Metal	10 tons/hr	CE18, Torit Cartridge Filter (BH#6)
	63	Induction Furnace	Metal	4,400 lb/hr	

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)

The emissions from this equipment shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% (1)

(1) An exceedence of the indicator opacity of 'no visible emissions' will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 97-A-659-S6

Pollutant: NESHAP Opacity
Emission Limit(s): 20% (2)

(2) Opacity limit from 40 CFR Part 63 Subpart EEEEE 63.7690(7) for the building structure or housing which in this case refers to the canopy. Iowa adoption of National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Subpart EEEEE by reference.

Authority for Requirement: 40 CFR Part 63 Subpart EEEEE
567 IAC 23.1(4)"de"
Iowa DNR Construction Permit 97-A-659-S6

Pollutant: PM_{10}
Emission Limit(s): 0.63 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 97-A-659-S6

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.005 gr/dscf,(3) 1.33 lb/hr

(3) Emission limits established in NESHAP Subpart EEEEE for electric arc furnaces as specified in 40 CFR Part 63 Subpart EEEEE 63.7690(a)(1)(i). The facility is required to meet the emission limit for Particulate Matter (PM) or, alternatively the emission limit for total metal HAPs.

Authority for Requirement: 40 CFR Part 63 Subpart EEEEE
567 IAC 23.1(4)"de"
Iowa DNR Construction Permit 97-A-659-S6

Pollutant: Total Metal HAP
Emission Limit(s): 0.0004 gr/dscf [4]

[4] Emission limits established in NESHAP Subpart EEEEE for electric arc furnaces as specified in 40 CFR Part 63 Subpart EEEEE 63.7690(a)(1)(ii). The facility is required to meet the emission limit for Particulate Matter (PM) or, alternatively the emission limit for total metal HAPs.

Authority for Requirement: 40 CFR Part 63 Subpart EEEEE
567 IAC 23.1(4)"de"
Iowa DNR Construction Permit 97-A-659-S6

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

NSPS and NESHAP Applicability

This project is **not** subject to the New Source Performance Standards (NSPS) at this time.

The facility is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart EEEEE-*National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries* as specified in 40 CFR Part 63 §63.7681. Except as specified in §63.7683(b), Keokuk Steel Castings must comply with each emission limitation, work practice standard, and operation and maintenance requirement in Subpart EEEEE that applies to Keokuk Steel Castings no later than April 23, 2007. This emission point includes units subject to the requirements of 40 CFR §63.7681.

The facility is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart A-*General Provisions* as specified in 40 CFR Part 63 §63.7760 (Table 1).

Operating Limits:
Operating limits for this emission point shall be:

A. As specified in §63.7700, Keokuk Steel Castings must comply with the certification requirements in paragraph (b) of §63.7700 or prepare and implement a plan for the selection and inspection of scrap according to the requirements in paragraph (c) of §63.7700.

B. As specified in §63.7710(b), Keokuk Steel Castings must prepare and operate at all times according to a written operation and maintenance plan for each capture and collection system and control device an emissions source subject to an emission limit in §63.7690(a). Which includes but is not limited to the following:

   (1) As specified in §63.7710(b)(3), Preventative maintenance plan for the baghouse associated with EP33, including a preventative maintenance schedule that is consistent with the manufacturer's instructions and for routine and long-term maintenance.

   (2) As specified in §63.7710(b)(4), A site-specific monitoring plan for each bag leak

detection system. The owner and operator shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan must address all the items identified in paragraphs (b)(4)(i) through (v) of §63.7710(b)(4).

(3) As specified in §63.7710(b)(5), Corrective action plan for the baghouse associated with EP33. The plan must include the requirement that, in event a bag leak detection system alarm is triggered, Keokuk Steel Castings must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon practicable.

C. As specified in §63.7741(b), Keokuk Steel Castings must install, operate, and maintain a bag leak detection system according to the requirements in paragraphs (b)(1) through (7) of §63.7741(b).

D. The total melt from the induction furnace (EU 63) shall not exceed 7,250 tons per twelve (12) month rolling period.

E. The daily average melt of the induction furnace (EU 63) shall not exceed 4,160 pounds per hour.

Authority for Requirement: Iowa DNR Construction Permit 97-A-659-S6

Reporting & Record keeping:
All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

As specified in §63.7753, Keokuk Steel Castings must keep each record onsite for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report and record. As specified in §63.7745(b), Keokuk Steel Castings must keep all operation and maintenance plans required by NESHAP Subpart EEEEE for the life of the iron foundry or until the iron foundry is no longer subject to the requirements of NESHAP Subpart EEEEE.

A. As specified in §63.7740(b), Keokuk Steel Castings must at all times monitor the relative change in PM loading using a bag leak detection system according requirements in §63.7741(b) and conduct inspections according to the requirements specified in (b)(1) through (8) of §63.7740(b). Requirements of (b)(1) through (8) of §63.7740(b) are specified below:

(1) As specified in §63.7740(b)(1), Monitor the pressure drop across each cell of the baghouse associated with EP10 each day to ensure pressure drop is in normal operating range identified in manual.

(2) As specified in §63.7740(b)(2), Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.

(3) As specified in §63.7740(b)(3), Check compressed air supply for pulse-jet baghouses each day.

(4) As specified in §63.7740(b)(4), Monitor cleaning cycles to ensure proper

operation using appropriate methodology.

(5) As specified in §63.7740(b)(5), Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.

(6) As specified in §63.7740(b)(6), Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or lying on their sides.

(7) As specified in §63.7740(b)(7), Confirm the physical integrity of the baghouse associated with EP10 through quarterly visual inspections of the baghouse associated with EP9B interior for air leaks.

(8) As specified in §63.7740(b)(8), Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

B. As specified in §63.7743(c)(1), maintain records of the times the bag leak detection system alarm sounded, and for each valid alarm, the time owner/operator initiate corrective action, the corrective action taken, and the date on which corrective action was completed.

C. As specified in §63.7743(c)(2), inspect and maintain the baghouse associated with EP33 according to the requirements of §63.7740(b)(1) through (8) and recording all information needed to document conformance with these requirements.

D. As specified in §63.7744, Keokuk Steel Castings must maintain records that document continuous compliance with certification requirements in §63.7700(b) or with procedures in scrap selection and inspection plan required in 63.7700(c). Records documenting compliance with the scrap selection and inspection plan must include a copy (kept onsite) of the procedures used by scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable.

E. As specified in 63.7745(a)(2), Record all information needed to document conformance with preventive maintenance plan required by §63.7710(b)(3).

F. As specified in 63.7745(a)(3), Record all information needed to document conformance with site specific monitoring plan required by §63.7710(b)(4).

G. As specified in 63.7745(a)(4), Record all information needed to document conformance with corrective action plan required by §63.7710(b)(5).

H. As specified §63.7752(a), Keokuk Steel Castings must keep the records specified in paragraphs (a)(1) through (4) of §63.7752(a).

I. As specified in §63.7752(c), Keokuk Steel Castings must keep records required by §§63.7743, 63.7744, and 63.7745 to show continuous compliance with each emission limitation, work practice standard, and operation and maintenance requirement that applies.

Authority for Requirement: Iowa DNR Construction Permit 97-A-659-S6

Emission Point Characteristics
This equipment shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 31.8
Stack Opening, (inches, dia.): 50
Exhaust Flow Rate (scfm): 59,000
Exhaust Temperature (°F): 94
Discharge Style: Vertical, unobstructed
Authority for Requirement: Iowa DNR Construction Permit 97-A-659-S6

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements
The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Stack Testing:

Pollutant – PM (federal)
1st Stack Test – Demonstrated Compliance on June 30, July 1 & July 2, 2004(1)
(1) Stack testing completed on June 30, July 1 & July 2, 2004, demonstrated compliance with the permitted emission limits and satisfies the requirements for an initial compliance demonstration.
Test Method – 40 CFR 60, Appendix A, Method 5
2nd Stack Test – Within 5-years of initial compliance testing (2)(3)
(2) Performance testing shall be conducted with all of the emission units operating.
(3) As specified in §63.7731, Keokuk Steel Castings must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emission limitations no less frequently than every five (5) years.
Test Method – 40 CFR 60, Appendix A, Method 5
Authority for Requirement – Iowa DNR Construction Permit 97-A-659-S6

Pollutant – NESHAP Opacity
1st Stack Test – Demonstrated Compliance on June 30, July 1 & July 2, 2004(1)
(1) Stack testing completed on June 30, July 1 & July 2, 2004, demonstrated compliance with the permitted emission limits and satisfies the requirements for an initial compliance demonstration.
Test Method – Opacity – 40 CFR 60, Appendix A, Method 9
2nd Stack Test – Every 6 months (2)
(2) Opacity limit is for the building or structure housing any iron and steel foundry emissions source (i.e., not point specific).
Test Method – Opacity – 40 CFR Part 60, Appendix A, Method 9
Authority for Requirement – Iowa DNR Construction Permit 97-A-659-S6

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 34

Associated Equipment

Associated Emission Unit ID Numbers: 48

Emission Unit vented through this Emission Point: 48
Emission Unit Description: New Sand 150 Day Tank
Raw Material/Fuel: Silica Sand
Rated Capacity: 35.62 tons/hr
Control Equipment: CE-19: Dust Filter

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from this equipment shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 20% (1)

(1) An exceedance of the indicator opacity of (0%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 97-A-664-S1

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.05 gr/scf
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 97-A-664-S1

Emission Point Characteristics
This equipment shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 70
Stack Opening, (inches, dia.): 15
Exhaust Flow Rate (scfm): 1,200
Exhaust Temperature (°F): 70
Discharge Style: Vertical, unobstructed
Authority for Requirement: Iowa DNR Construction Permit 97-A-664-S1

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements
The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

The data pertaining to this plan shall be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: SCC01

Associated Equipment

Associated Emission Unit ID Numbers: SCC01

Emission Unit vented through this Emission Point: SCC01
Emission Unit Description: Tumble Blast (70 cu ft)
Raw Material/Fuel: Shot
Rated Capacity: 40 lb/hr
Control Equipment: CE-SCC01: Baghouse #10

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from this equipment shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% (1)
(1) An exceedence of the indicator opacity of 0% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 02-A-656-S3

Pollutant: PM_{10}
Emission Limit(s): 0.48 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 02-A-656-S3

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.05 gr/scf, 0.48 lb/hr
Authority for Requirement: 567 IAC 23.4(6)
Iowa DNR Construction Permit 02-A-656-S3

Emission Point Characteristics
This equipment shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 36.4
Stack Opening, (inches, dia.): 36
Exhaust Flow Rate (scfm): 6,800
Exhaust Temperature (°F): 70
Discharge Style: Vertical, unobstructed
Authority for Requirement: Iowa DNR Construction Permit 02-A-656-S3

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements
The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☒ **No** ☐

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

The data pertaining to this plan shall be maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: B2

Associated Equipment

Associated Emission Unit ID Numbers: SCC Boiler

Emission Unit vented through this Emission Point: SCC Boiler
Emission Unit Description: Boiler
Raw Material/Fuel: Natural Gas
Rated Capacity: 12.6 MMBtu/hr

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from this equipment shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% (1)
(1) An exceedance of an indicator opacity of 25% will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 01-A-233-S2

Pollutant: PM_{10}
Emission Limit(s): 1.2 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 01-A-233-S2

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.6 lb/MMBtu
Authority for Requirement: 567 IAC 23.3(2)"b"
Iowa DNR Construction Permit 01-A-233-S2

Pollutant: SO_2
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"
Iowa DNR Construction Permit 01-A-233-S2

Pollutant: NO_x
Emission Limit(s): 9.1 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 01-A-233-S2

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Operating Limits:

Operating limits for this emission unit shall be:

A. This emission unit shall operate on natural gas only.

Authority for Requirement: Iowa DNR Construction Permit 01-A-233-S2

Emission Point Characteristics

This equipment shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 37.5
Stack Opening, (inches, dia.): 21
Exhaust Flow Rate (scfm): 1,200
Exhaust Temperature (°F): 250
Discharge Style: Vertical, unobstructed
Authority for Requirement: Iowa DNR Construction Permit 01-A-233-S2

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: (Internally Vented)

EP	EU	EU Description	Raw Material/ Fuel	Rated Capacity
08 FUG	16	Scrap & Charge Handling	Scrap Steel	7.00 tons/hr
24 FUG	45	Casting Grinding	Castings	3.30 tons/hr
	47	Casting Salvage	Castings	1.17 tons/hr

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from this equipment shall not exceed the following specified levels.

Pollutant: Opacity
Emission Limits: 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limits: 0.1gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"

Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 51

Associated Equipment

Associated Emission Unit ID Numbers: 17

Emission Unit vented through this Emission Point: 17
Emission Unit Description: Electric Arc Furnace and Canopy Area
Raw Material/Fuel: Steel Scrap & Castings
Rated Capacity: 9.5 tons/hr
Control Equipment: CE-21, Baghouse (BH#4)

Applicable Requirements

Emission Limits (lb/hr, gr/dscf, lb/MMBtu, % opacity, etc.)
The emissions from this equipment shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40% (1)
(2) An exceedence of the indicator opacity of 'no visible emissions' will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).
Authority for Requirement: 567 IAC 23.3(2)"d"
Iowa DNR Construction Permit 06-A-450-S4

Pollutant: NESHAP Opacity
Emission Limit(s): 20% (2)
(2) Opacity limit from 40 CFR Part 63 Subpart EEEEE 63.7690(7) for the building structure or housing which in this case refers to the canopy. Iowa adoption of National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries Subpart EEEEE by reference.
Authority for Requirement: 40 CFR Part 63 Subpart EEEEE
567 IAC 23.1(4)"de"
Iowa DNR Construction Permit 06-A-450-S4

Pollutant: PM_{10}
Emission Limit(s): 0.65 lb/hr
Authority for Requirement: Iowa DNR Construction Permit 06-A-450-S4

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.005 gr/dscf [3]

[3] Emission limits established in NESHAP Subpart EEEEE for electric arc furnaces as specified in 40 CFR Part 63 Subpart EEEEE 63.7690(a)(1)(i). The facility is required to meet the emission limit for Particulate Matter (PM) or, alternatively the emission limit for total metal HAPs.

Authority for Requirement: 40 CFR Part 63 Subpart EEEEE
567 IAC 23.1(4)"de"
Iowa DNR Construction Permit 06-A-450-S4

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"
Iowa DNR Construction Permit 06-A-450-S4

Pollutant: Total Metal HAP
Emission Limit(s): 0.0004 gr/dscf [4]

[4] Emission limits established in NESHAP Subpart EEEEE for electric arc furnaces as specified in 40 CFR Part 63 Subpart EEEEE 63.7690(a)(1)(ii). The facility is required to meet the emission limit for Particulate Matter (PM) or, alternatively the emission limit for total metal HAPs.

Authority for Requirement: 40 CFR Part 63 Subpart EEEEE
567 IAC 23.1(4)"de"
Iowa DNR Construction Permit 06-A-450-S4

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

NSPS and NESHAP Applicability

There is no applicable NSPS at this time.

The Electric Arc Furnace (EU 17) is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart EEEEE-*National Emission Standards for Hazardous Air Pollutants for Iron and Steel Foundries* as specified in 40 CFR Part 63 §63.7681. Except as specified in §63.7683(b), Keokuk Steel Castings must comply with each emission limitation, work practice standard, and operation and maintenance requirement in Subpart EEEEE that applies to Keokuk Steel Castings no later than April 23, 2007.

The Electric Arc Furnace (EU 17) is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart A-*General Provisions* as specified in 40 CFR Part 63 §63.7760 (Table 1).

Operating Limits:
Operating limits for this emission unit shall be:

A. As specified in §63.7700, Keokuk Steel Castings must comply with the certification requirements in paragraph (b) of §63.7700 or prepare and implement a plan for the selection and inspection of scrap according to the requirements in paragraph (c) of §63.7700.

B. As specified in §63.7710(b), Keokuk Steel Castings must prepare and operate at all times according to a written operation and maintenance plan for each capture and collection system and control device an emissions source subject to an emission limit in §63.7690(a). Which includes but is not limited to the following:

(1) As specified in §63.7710(b)(3), Preventative maintenance plan for Baghouse associated with EP9B, including a preventative maintenance schedule that is consistent with the manufacturer's instructions and for routine and long-term maintenance.

(2) As specified in §63.7710(b)(4), A site-specific monitoring plan for each bag leak detection system. The owner and operator shall operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. The plan must address all the items identified in paragraphs (b)(4)(i) through (v) of §63.7710(b)(4).

(3) As specified in §63.7710(b)(5), Corrective action plan for Baghouse associated with EP9B. The plan must include the requirement that, in event a bag leak detection system alarm is triggered, Keokuk Steel Castings must initiate corrective action to determine the cause of the alarm within 1 hour of the alarm, initiate corrective action to correct the cause of the problem within 24 hours of the alarm, and complete the corrective action as soon practicable.

C. As specified in §63.7741(b), Keokuk Steel Castings must install, operate, and maintain a bag leak detection system according to the requirements in paragraphs (b)(1) through (7) of §63.7741(b).

Authority for Requirement: Iowa DNR Construction Permit 06-A-450-S4

Reporting and Recordkeeping:
All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner.

As specified in §63.7753, Keokuk Steel Castings must keep each record onsite for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report and record. As specified in §63.7745(b), Keokuk Steel Castings must keep all operation and maintenance plans required by NESHAP Subpart EEEEE for the life of the iron foundry or until the iron foundry is no longer subject to the requirements of NESHAP Subpart EEEEE.

A. As specified in §63.7740(b), Keokuk Steel Castings must at all times monitor the relative change in PM loading using a bag leak detection system according requirements in §63.7741(b) and conduct inspections according to the requirements specified in (b)(1)

through (8) of §63.7740(b). Requirements of (b)(1) through (8) of §63.7740(b) are specified below:

(1) As specified in §63.7740(b)(1), Monitor the pressure drop across each cell of Baghouse associated with EP9B each day to ensure pressure drop is in normal operating range identified in manual.

(2) As specified in §63.7740(b)(2), Confirm that dust is being removed from hoppers through weekly visual inspections or other means of ensuring the proper functioning of removal mechanisms.

(3) As specified in §63.7740(b)(3), Check compressed air supply for pulse-jet baghouses each day.

(4) As specified in §63.7740(b)(4), Monitor cleaning cycles to ensure proper operation using appropriate methodology.

(5) As specified in §63.7740(b)(5), Check bag cleaning mechanisms for proper functioning through monthly visual inspection or equivalent means.

(6) As specified in §63.7740(b)(6), Make monthly visual checks of bag tension on reverse air and shaker-type baghouses to ensure that bags are not kinked (kneed or bent) or lying on their sides.

(7) As specified in §63.7740(b)(7), Confirm the physical integrity of Baghouse associated with EP9B through quarterly visual inspections of Baghouse associated with EP9B interior for air leaks.

(8) As specified in §63.7740(b)(8), Inspect fans for wear, material buildup, and corrosion through quarterly visual inspections, vibration detectors, or equivalent means.

B. As specified in §63.7743(c)(1), maintain records of the times the bag leak detection system alarm sounded, and for each valid alarm, the time owner/operator initiate corrective action, the corrective action taken, and the date on which corrective action was completed.

C. As specified in §63.7743(c)(2), inspect and maintain Baghouse associated with EP51 according to the requirements of §63.7740(b)(1) through (8) and recording all information needed to document conformance with these requirements.

D. As specified in §63.7744, Keokuk Steel Castings must maintain records that document continuous compliance with certification requirements in §63.7700(b) or with procedures in scrap selection and inspection plan required in 63.7700(c). Records documenting compliance with the scrap selection and inspection plan must include a copy (kept onsite) of the procedures used by scrap supplier for either removing accessible mercury switches or for purchasing automobile bodies that have had mercury switches removed, as applicable.

E. As specified in 63.7745(a)(2), Record all information needed to document conformance with preventive maintenance plan required by §63.7710(b)(3).

F. As specified in 63.7745(a)(3), Record all information needed to document conformance with site specific monitoring plan required by §63.7710(b)(4).

G. As specified in 63.7745(a)(4), Record all information needed to document conformance with

corrective action plan required by §63.7710(b)(5).

H. As specified §63.7752(a), Keokuk Steel Castings must keep the records specified in paragraphs (a)(1) through (4) of §63.7752(a).

I. As specified in §63.7752(c), Keokuk Steel Castings must keep records required by §§63.7743, 63.7744, and 63.7745 to show continuous compliance with each emission limitation, work practice standard, and operation and maintenance requirement that applies.

Authority for Requirement: Iowa DNR Construction Permit 06-A-450-S4

Emission Point Characteristics

The emission point shall conform to the specifications listed below.

Stack Height, (ft, from the ground): 60.4
Stack Opening, (inches, dia.): 48
Exhaust Flow Rate (scfm): 15,200
Exhaust Temperature (°F): 96
Discharge Style: Vertical, unobstructed
Authority for Requirement: Iowa DNR Construction Permit 06-A-450-S4

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.

Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Stack Testing:

Pollutant – PM (federal)
1st Stack Test – Demonstrated Compliance on October 19, 2007
Test Method – 40 CFR 60, Appendix A, Method 5
2nd Stack Test – Within 5-years of initial compliance testing (1)(2)

(1) As specified in §63.7731, Keokuk Steel Castings must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emission limitations no less frequently than every five (5) years.

(2) Stack testing shall be completed for EP9B and EP51 simultaneously. Stack testing completed on October 19, 2007, demonstrated compliance with the permitted emission limits and satisfies the requirements for an initial compliance demonstration.

Test Method – 40 CFR 60, Appendix A, Method 5
Authority for Requirement – Iowa DNR Construction Permit 06-A-450-S4

Pollutant – Total Metal HAP
1st Stack Test – Demonstrated Compliance on October 19, 2007
Test Method – Total Metal HAP – 40 CFR Part 60, Appendix A, Method 29
2nd Stack Test – Within 5-years of initial compliance testing (1)(2)

(1) As specified in §63.7731, Keokuk Steel Castings must conduct subsequent performance tests to demonstrate compliance with all applicable PM or total metal HAP emission limitations no less frequently than every five (5) years.

(2) Stack testing shall be completed for EP9B and EP51 simultaneously. Stack testing completed on October 19, 2007, demonstrated compliance with the permitted emission limits and satisfies the requirements for an initial compliance demonstration.

Test Method – Total Metal HAP – 40 CFR Part 60, Appendix A, Method 29
Authority for Requirement – Iowa DNR Construction Permit 06-A-450-S4

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Authority for Requirement: 567 IAC 22.108(3)

Emission Point ID Number: 106

Associated Equipment

Associated Emission Unit ID Number: 106

Emission Unit vented through this Emission Point: 106
Emission Unit Description: Emergency Diesel Engine—Sprinkler System Pump
Raw Material/Fuel: Diesel Fuel
Rated Capacity: 208 bhp

Applicable Requirements

Emission Limits (lb/hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from each emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40 %
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter
Emission Limit(s): 0.1 gr/dscf
Authority for Requirement: 567 IAC 23.3(2)"a"

Pollutant: Sulfur Dioxide (SO_2)
Emission Limit(s): 500 ppmv
Authority for Requirement: 567 IAC 23.3(3)"e"

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput:

1. No person shall allow, cause or permit the combustion of number 1 or number 2 fuel oil exceeding a sulfur content of 0.5 percent by weight.

Authority for Requirement: 567 IAC 23.3(3)"b"(1)

Reporting & Record keeping:
The following records shall be maintained on-site for five (5) years and available for inspection upon request by representatives of the Department of Natural Resources:

1. The facility shall monitor the percent of sulfur by weight in the fuel oil as delivered. The documentation may be vendor supplied or facility generated.

Authority for Requirement: 567 IAC 22.108(3)

NESHAP:
This emission unit is an affected reciprocating internal combustion engines that is subject to 40 CFR Part 63 Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). According to 63.6590(a)(1)(ii) this is an existing CI stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

The permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart ZZZZ. Below is a general outline of requirements for this subpart. For a full explanation of all requirements and to view the subpart in its entirety, please refer to the web link in Appendix A.

Compliance Date
Per 63.6595 you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013.

Operating Conditions 40 CFR 63.6602

1. Change oil and filter every 500 hours of operation or annually, whichever comes first.[1]
   [1] Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2c of this subpart.
2. Inspect air cleaner every 1000 hours of operation or annually, whichever comes first.
3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [2]
   [2] Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices

Maintenance Requirements 40 CFR 63.6625

1. Must operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions or develop and follow your own maintenance plan, which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
2. If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.
3. You must minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [1]

(1) Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices

4. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c to Subpart ZZZZ of Part 63, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

Operating Limits 40 CFR 63.6640(f)

1. Operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for more than 50 hours per year is prohibited.
2. There is no time limit on the use of emergency stationary RICE in emergency situations.
3. Maintenance and readiness checks are limited to 100 hours per year.
4. You may operate your emergency stationary RICE up to 50 hours per year for non-emergency situations, but those 50 hours are counted toward the 100 hours of maintenance and testing. See 40 CFR 63.6640(f)(4) for additional information.

Reports & Records
See 40 CFR 63.6650 and 63.6655 for a complete list and description.
An initial notification is not required per 40 CFR 63.6645(a)(5)

Authority for Requirement: 567 IAC 23.1(4)"cz"
40 CFR Part 63 Subpart ZZZZ

Monitoring Requirements
The owner/operator of this equipment shall comply with the monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Facility Maintained Operation & Maintenance Plan Required? **Yes** ☐ **No** ☒

Compliance Assurance Monitoring (CAM) Plan Required? **Yes** ☐ **No** ☒

Authority for Requirement: 567 IAC 22.108(3)

IV. General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code chapter 22.

G1. Duty to Comply

1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. *567 IAC 22.108(9)"a"*
2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. *567 IAC 22.105 (2)"h"(3)*
3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. *567 IAC 22.108 (1)"b"*
4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. *567 IAC 22.108 (14)*
5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. *567 IAC 22.108 (9)"b"*

G2. Permit Expiration

1. Except as provided in 567 IAC 22.104, the expiration of this permit terminates the permittee's right to operate unless a timely and complete application has been submitted for renewal. Any testing required for renewal shall be completed before the application is submitted. *567 IAC 22.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall present or mail the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, 7900 Hickman Rd, Suite #1, Windsor Heights, Iowa 50324, two copies (three if your facility is located in Linn or Polk county) of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. An additional copy must also be sent to EPA Region VII, Attention: Chief of Air Permits, 901 N. 5th St., Kansas City, KS 66101. The application must include all emission points, emission units, air pollution control equipment, and monitoring devices at the facility. All emissions generating activities, including fugitive emissions, must be included. The definition of a complete application is as indicated in 567 IAC 22.105(2). *567 IAC 22.105*

G3. Certification Requirement for Title V Related Documents

Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. *567 IAC 22.107 (4)*

G4. Annual Compliance Certification

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in

accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. *567 IAC 22.108 (15)"e"*

G5. Semi-Annual Monitoring Report

By March 31 and September 30 of each year, the permittee shall submit a report of any monitoring required under this permit for the 6 month periods of July 1 to December 31 and January 1 to June 30, respectively. All instances of deviations from permit requirements must be clearly identified in these reports, and the report must be signed by a responsible official, consistent with 567 IAC 22.107(4). The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. *567 IAC 22.108 (5)*

G6. Annual Fee

1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The following forms shall be submitted annually by March 31 documenting actual emissions for the previous calendar year.
    a. Form 1.0 "Facility Identification";
    b. Form 4.0 "Emissions unit-actual operations and emissions" for each emission unit;
    c. Form 5.0 "Title V annual emissions summary/fee"; and
    d. Part 3 "Application certification."
4. The fee shall be submitted annually by July 1. The fee shall be submitted with the following forms:
    a. Form 1.0 "Facility Identification";
    b. Form 5.0 "Title V annual emissions summary/fee";
    c. Part 3 "Application certification."
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.

8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

G7. Inspection of Premises, Records, Equipment, Methods and Discharges

Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:

1. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. *567 IAC 22.108 (15)"b"*

G8. Duty to Provide Information

The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. *567 IAC 22.108 (9)"e"*

G9. General Maintenance and Repair Duties

The owner or operator of any air emission source or control equipment shall:

1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
2. Remedy any cause of excess emissions in an expeditious manner.
3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. *567 IAC 24.2(1)*

G10. Recordkeeping Requirements for Compliance Monitoring

1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:
    a. The date, place and time of sampling or measurements
    b. The date the analyses were performed.
    c. The company or entity that performed the analyses.
    d. The analytical techniques or methods used.
    e. The results of such analyses; and
    f. The operating conditions as existing at the time of sampling or measurement.
    g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)
2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance

records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.

3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:

a. Comply with all terms and conditions of this permit specific to each alternative scenario.

b. Maintain a log at the permitted facility of the scenario under which it is operating.

c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 22.108(4), 567 IAC 22.108(12)*

G11. Evidence used in establishing that a violation has or is occurring.

Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein.

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:

a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;

b. Compliance test methods specified in 567 Chapter 25; or

c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.

2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:

a. Any monitoring or testing methods provided in these rules; or

b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. *567 IAC 21.5(1)-567 IAC 21.5(2)*

G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. *567 IAC 22.108(6)*

G13. Hazardous Release

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 281-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). *567 IAC Chapter 131-State Only*

G14. Excess Emissions and Excess Emissions Reporting Requirements

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process

equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

2. Excess Emissions Reporting

a. Oral Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An oral report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1)) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable visible emission standard by more than 10 percent opacity. The oral report may be made in person or by telephone and shall include as a minimum the following:

i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.

ii. The estimated quantity of the excess emission.

iii. The time and expected duration of the excess emission.

iv. The cause of the excess emission.

v. The steps being taken to remedy the excess emission.

vi. The steps being taken to limit the excess emission in the interim period.

b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required oral reports to the department within seven days of the onset of the upset condition, and shall include as a minimum the following:

i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.

ii. The estimated quantity of the excess emission.

iii. The time and duration of the excess emission.

iv. The cause of the excess emission.

v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.
vi. The steps that were taken to limit the excess emission.
vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. *567 IAC 24.1(1)-567 IAC 24.1(4)*

3. Emergency Defense for Excess Emissions. For the purposes of this permit, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
b. The facility at the time was being properly operated;
c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and
d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. *567 IAC 22.108(16)*

G15. Permit Deviation Reporting Requirements

A deviation is any failure to meet a term, condition or applicable requirement in the permit. Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). *567 IAC 22.108(5)"b"*

G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. *567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)*

G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:

a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.
b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
d. The changes are not subject to any requirement under Title IV of the Act.
e. The changes comply with all applicable requirements.
f. For such a change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:

i. A brief description of the change within the permitted facility,
ii. The date on which the change will occur,
iii. Any change in emission as a result of that change,
iv. The pollutants emitted subject to the emissions trade
v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
vii. Any permit term or condition no longer applicable as a result of the change.
567 IAC 22.110(1)

2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*
3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*
4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*
5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

G18. Duty to Modify a Title V Permit

1. Administrative Amendment.

a. An administrative permit amendment is a permit revision that is required to do any of the following:

i. Correct typographical errors

ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;

iii. Require more frequent monitoring or reporting by the permittee; or

iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.

b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.

c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.

2. Minor Permit Modification.

a. Minor permit modification procedures may be used only for those permit modifications that do any of the following:

i. Do not violate any applicable requirements

ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit.

iii. Do not require or change a case by case determination of an emission limitation or other standard, or increment analysis.

iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act.;

v. Are not modifications under any provision of Title I of the Act; and

vi. Are not required to be processed as significant modification.

b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:

i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs.

ii. The permittee's suggested draft permit

iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of a minor permit modification procedures and a request that such procedures be used; and

iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).

c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this

change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, existing permit term terms and conditions it seeks to modify may subject the facility to enforcement action.

3. Significant Permit Modification. Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 22, including those for applications, public participation, review by affected states, and review by the administrator, and those requirements that apply to Title V issuance and renewal. *567 IAC 22.111-567 IAC 22.113* The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of the changed source may not commence until the department revises the permit. *567 IAC 22.105(1)"a"(4)*

G19. Duty to Obtain Construction Permits

Unless exempted under 567 IAC 22.1(2), the permittee must not construct, install, reconstruct, or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, conditional permit, or permit pursuant to 567 IAC 22.8, or permits required pursuant to 567 IAC 22.4 and 567 IAC 22.5. Such permits shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source. *567 IAC 22.1(1)*

G20. Asbestos

The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when conducting any renovation or demolition activities at the facility. *567 IAC 23.1(3)"a", and 567 IAC 23.2*

G21. Open Burning

The permittee is prohibited from conducting open burning, except as may be allowed by 567 IAC 23.2. *567 IAC 23.2 <u>except</u> 23.2(3)"h"; 567 IAC 23.2(3)"h" - State Only*

G22. Acid Rain (Title IV) Emissions Allowances

The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. *567 IAC 22.108(7)*

G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.

b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.

c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.

d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.

2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.

d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)

e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

G24. Permit Reopenings

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or

termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 22.108(9)"c"*

2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.

a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;

b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to May 15, 2001.

c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a", 567 IAC 22.108(17)"b"*

3. A permit shall be reopened and revised under any of the following circumstances:

a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;

b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;

c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.

d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*

4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 22.114(2)*

G25. Permit Shield

1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:

a. Such applicable requirements are included and are specifically identified in the permit; or

b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.

3. A permit shield shall not alter or affect the following:

a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;

b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;

d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. *567 IAC 22.108 (18)*

G26. Severability

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. *567 IAC 22.108 (8)*

G27. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. *567 IAC 22.108 (9)"d"*

G28. Transferability

This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought to determine transferability of the permit. *567 IAC 22.111 (1)"d"*

G29. Disclaimer

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. *567 IAC 22.3(3)"c"*

G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification

The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with applicable requirements of 567 – Chapter 23 or a permit condition. For the department to consider test results a valid demonstration of compliance with applicable rules or a permit condition, such notice shall be given. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. Unless specifically waived by the department's stack test contact, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. The department may accept a testing protocol in lieu of a pretest meeting. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be

demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.

Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator
Iowa DNR, Air Quality Bureau
7900 Hickman Road, Suite #1
Windsor Heights, IA 50324
(515) 242-6001

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.

567 IAC 25.1(7)"a", 567 IAC 25.1(9)

G31. Prevention of Air Pollution Emergency Episodes

The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons.

567 IAC 26.1(1)

G32. Contacts List

The current address and phone number for reports and notifications to the EPA administrator is:

Chief of Air Permits
EPA Region 7
Air Permits and Compliance Branch
901 N. 5th Street
Kansas City, KS 66101
(913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite #1
Windsor Heights, IA 50324
(515) 242-5100

Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

Field Office 1
909 West Main – Suite 4
Manchester, IA 52057
(563) 927-2640

Field Office 2
2300-15th St., SW
Mason City, IA 50401
(641) 424-4073

Field Office 3
1900 N. Grand Ave.
Spencer, IA 51301
(712) 262-4177

Field Office 4
1401 Sunnyside Lane
Atlantic, IA 50022
(712) 243-1934

Field Office 5
401 SW 7th Street, Suite I
Des Moines, IA 50309
(515) 725-0268

Field Office 6
1023 West Madison Street
Washington, IA 52353-1623
(319) 653-2135

Polk County Planning & Development
Air Quality Division
5885 NE 14th St.
Des Moines, IA 50313
(515) 286-3351

Linn County Public Health Dept.
Air Pollution Control Division
501 13th St., NW
Cedar Rapids, IA 52405
(319) 892-6000

V. Appendix A

Electronic Code of Federal Regulations, *e-CFR*; Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines: http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&rgn=div6&view=text&node=40:13.0.1.1.1.1&idno=40